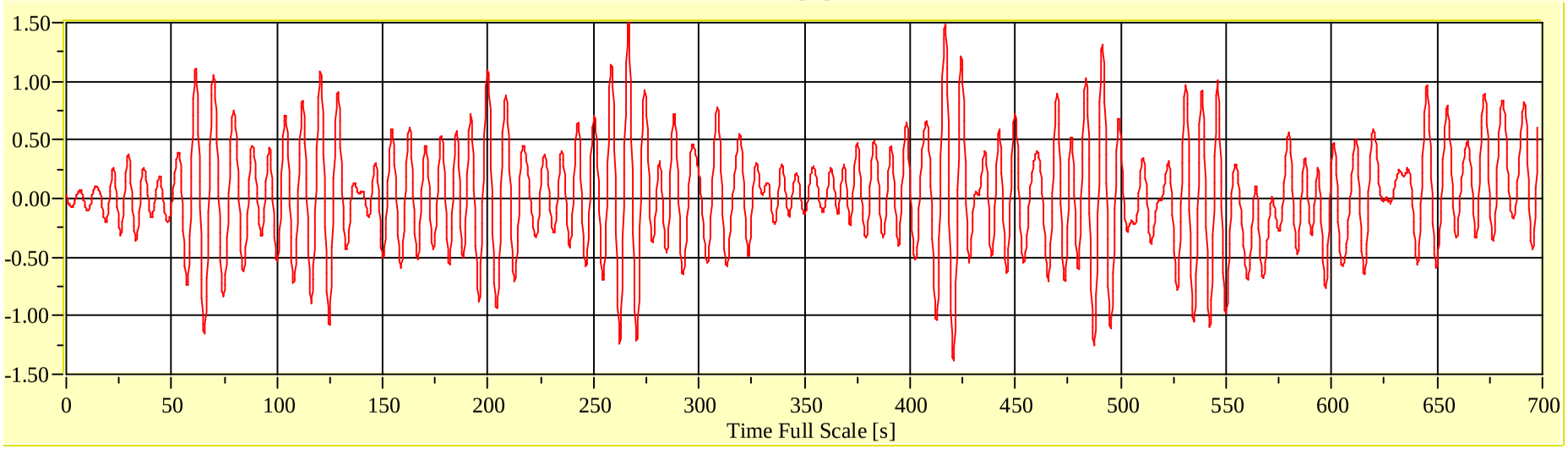
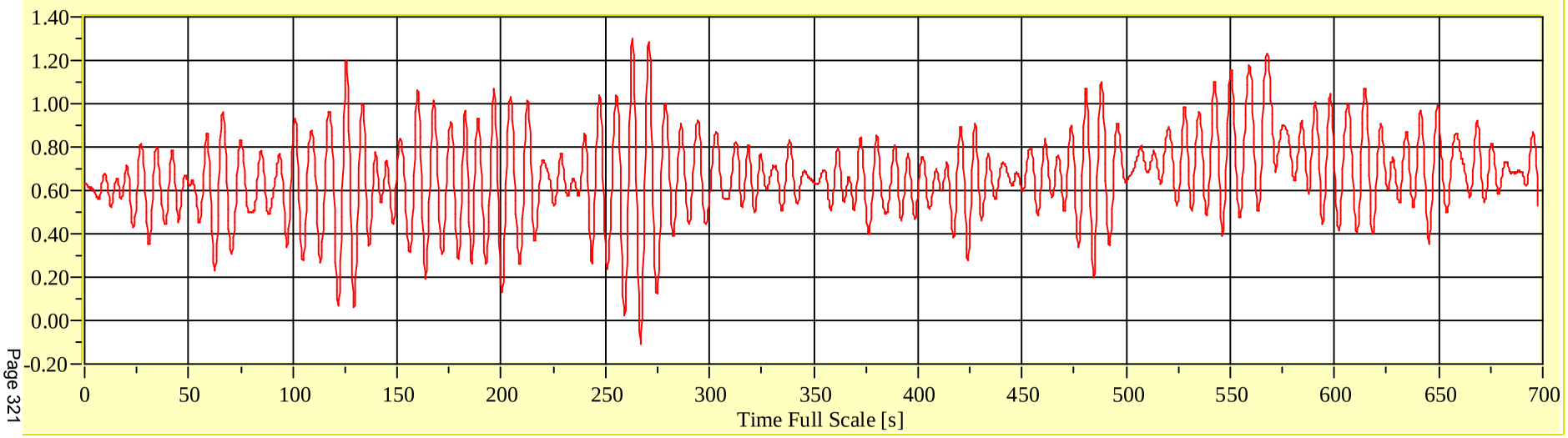
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-04	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

Heave [m]



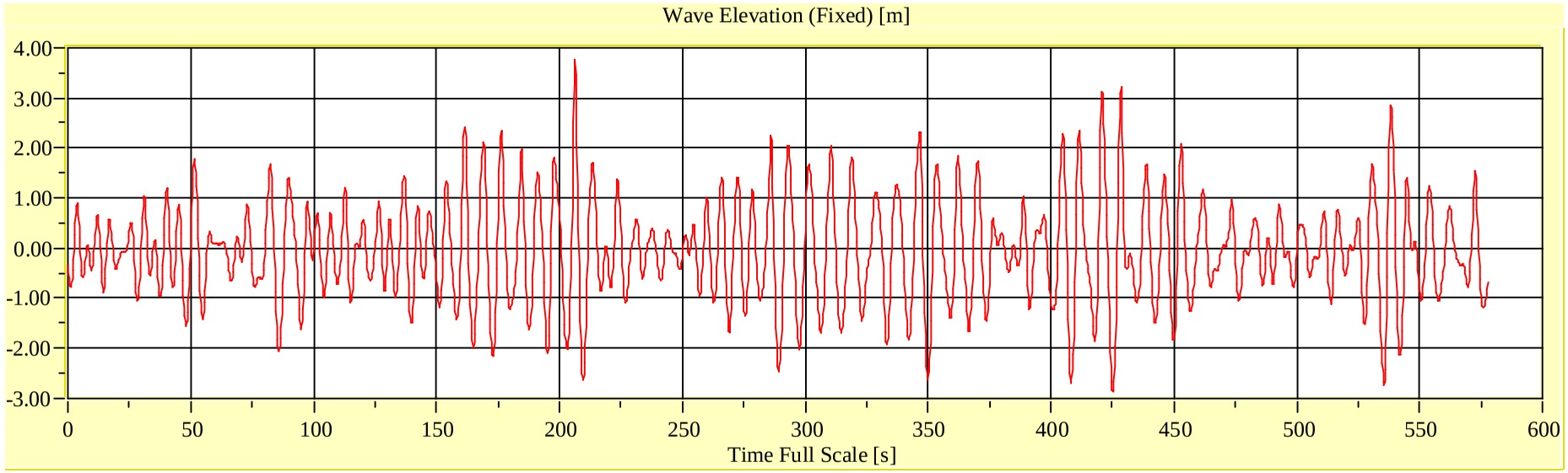
Pitch Angle [deg] (Stern Trim = Positiv)

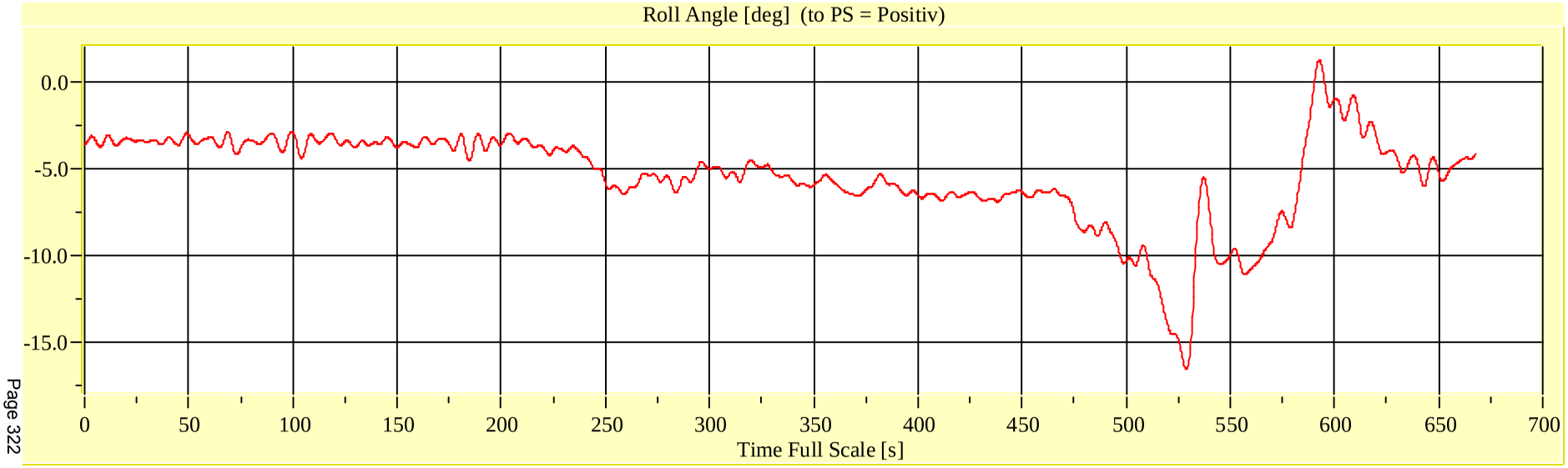


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-05	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

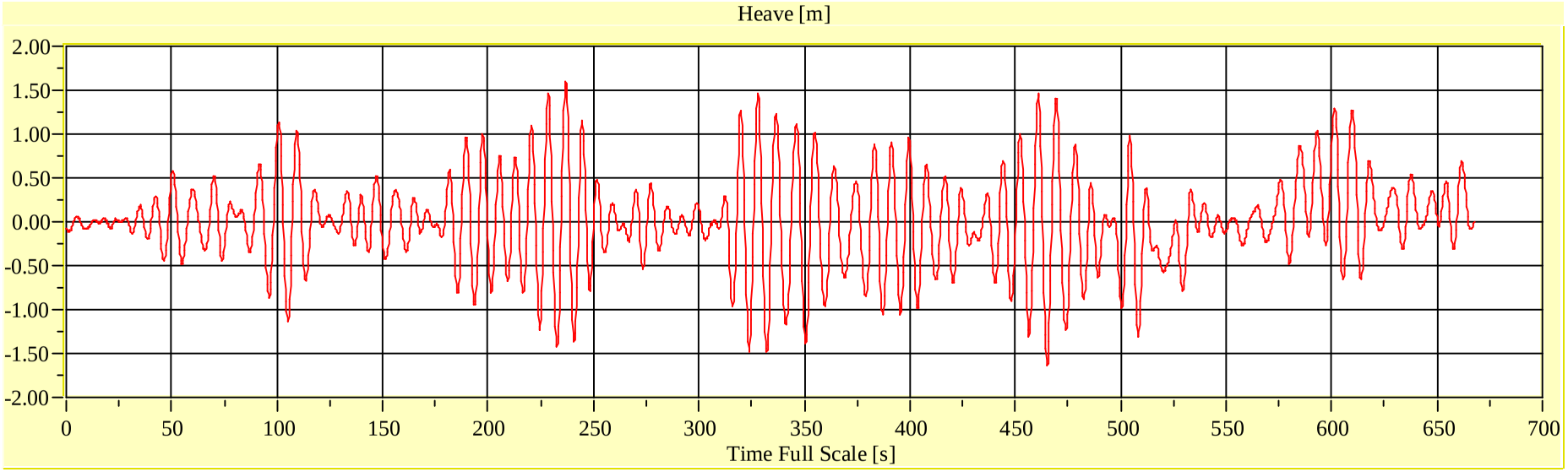


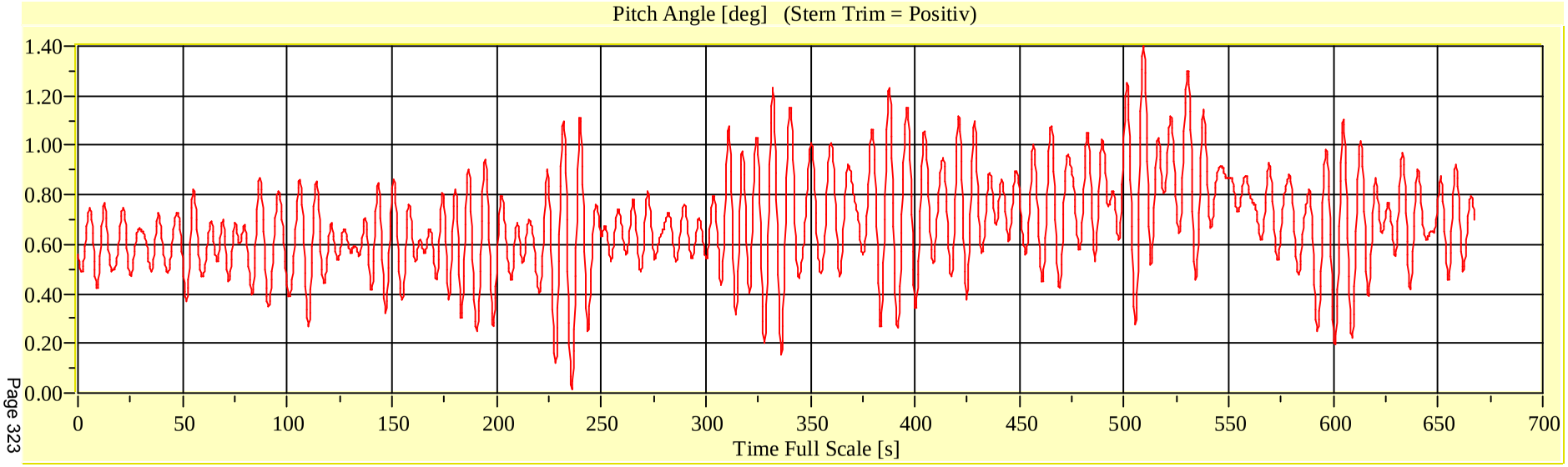


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-05	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

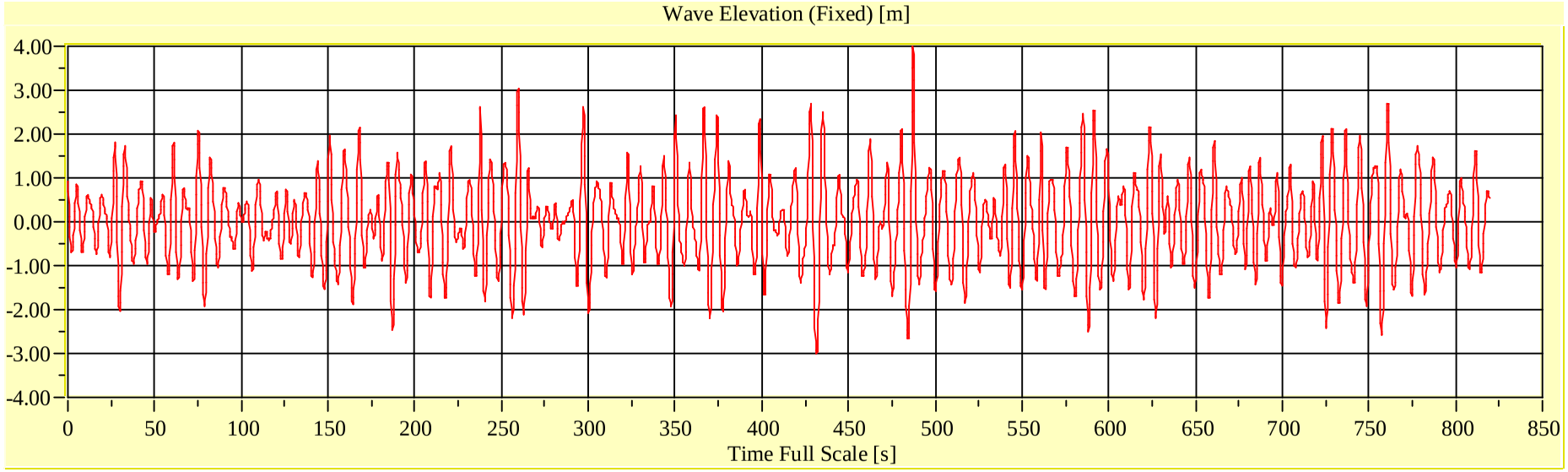


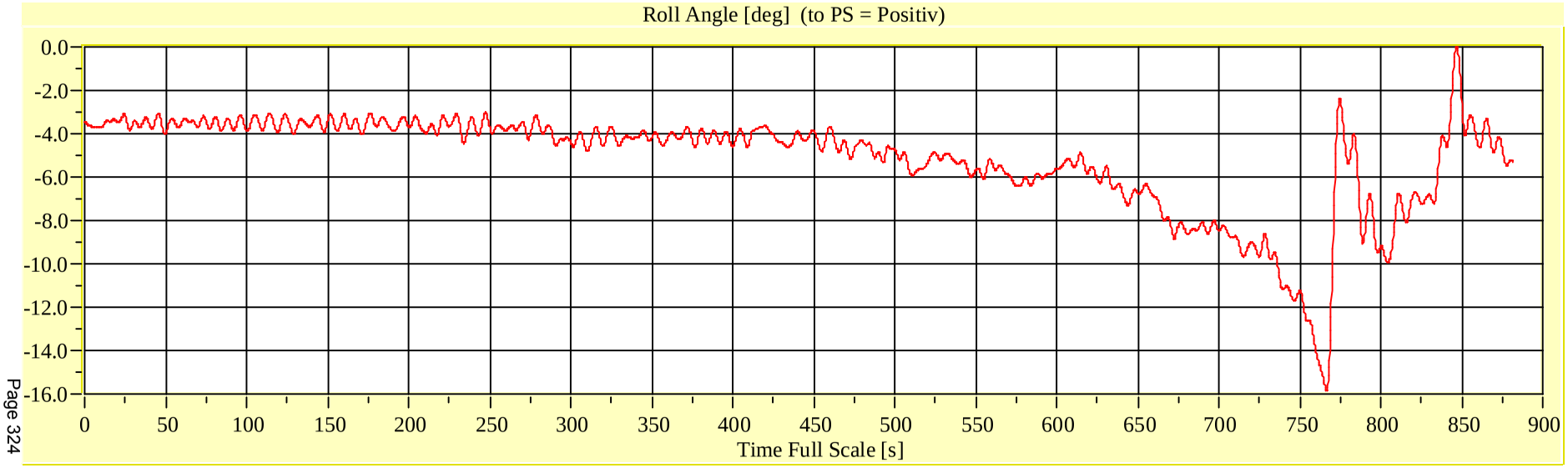


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-06	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

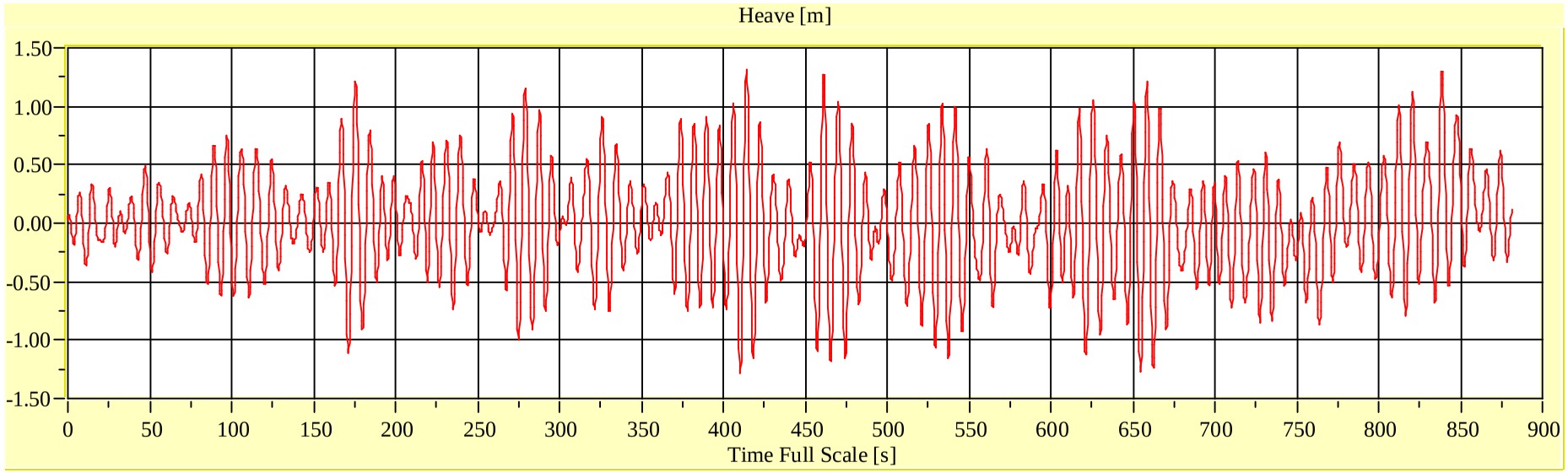


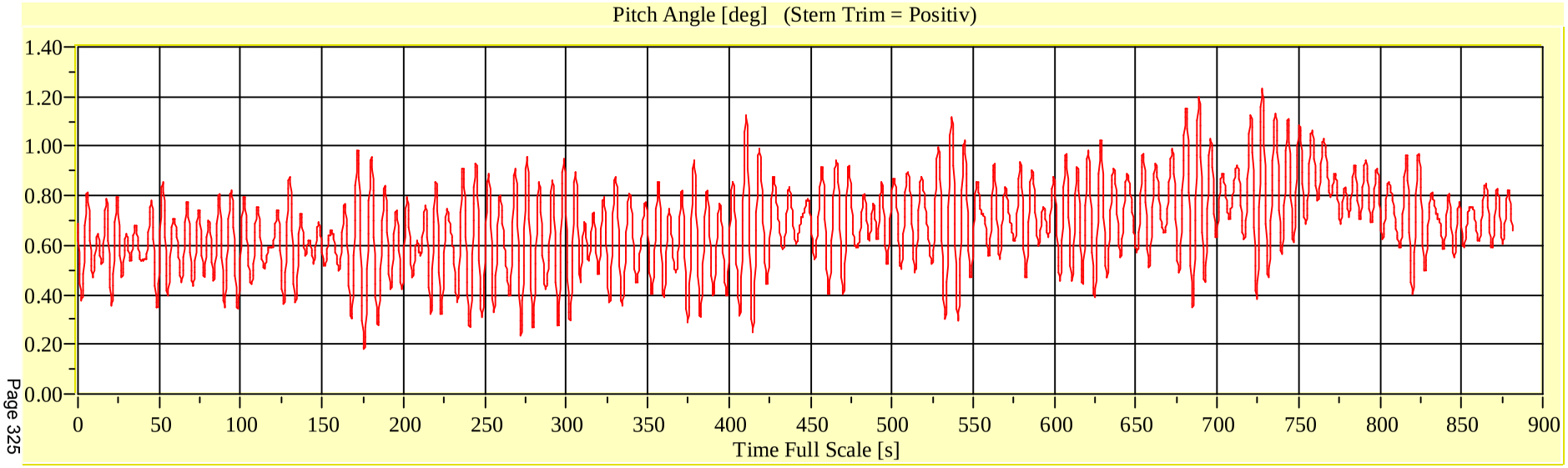


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-06	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

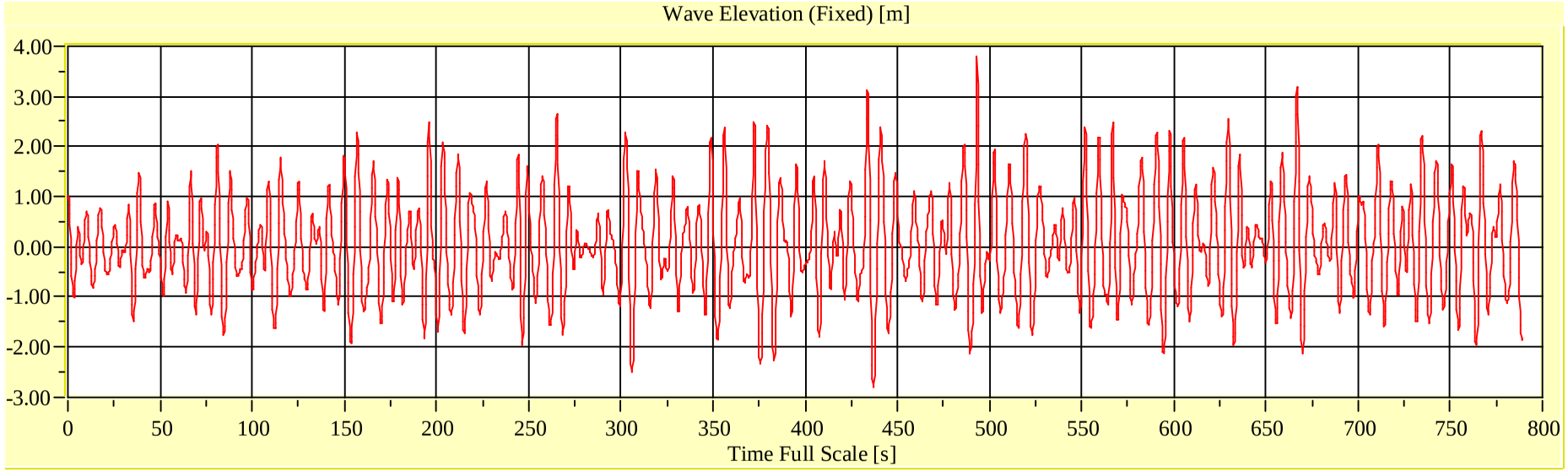


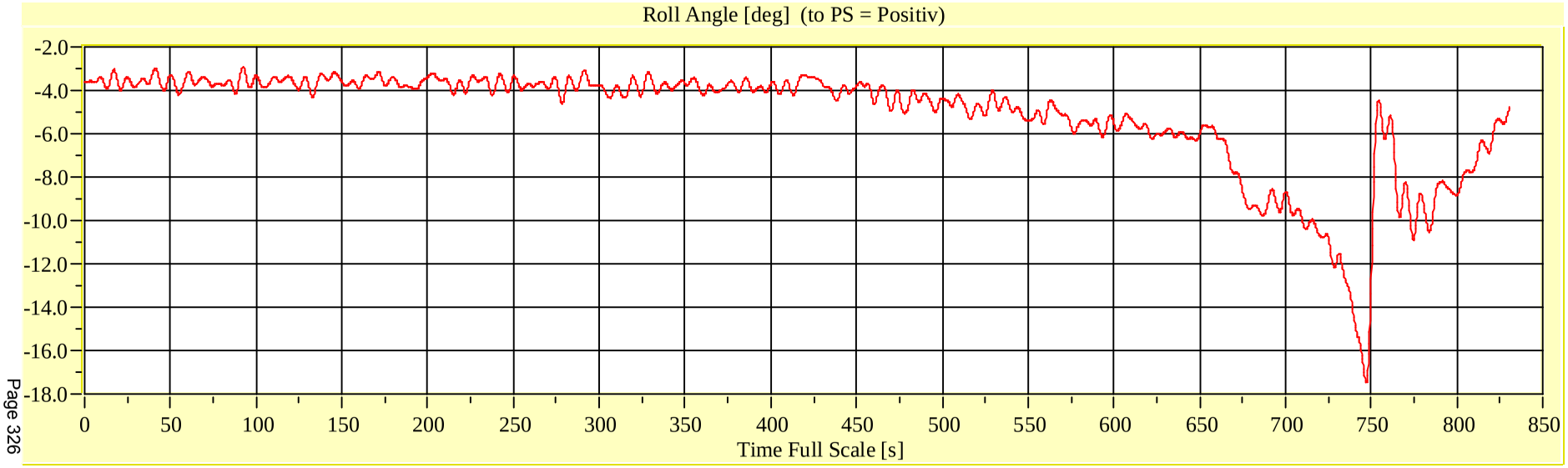


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-07	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

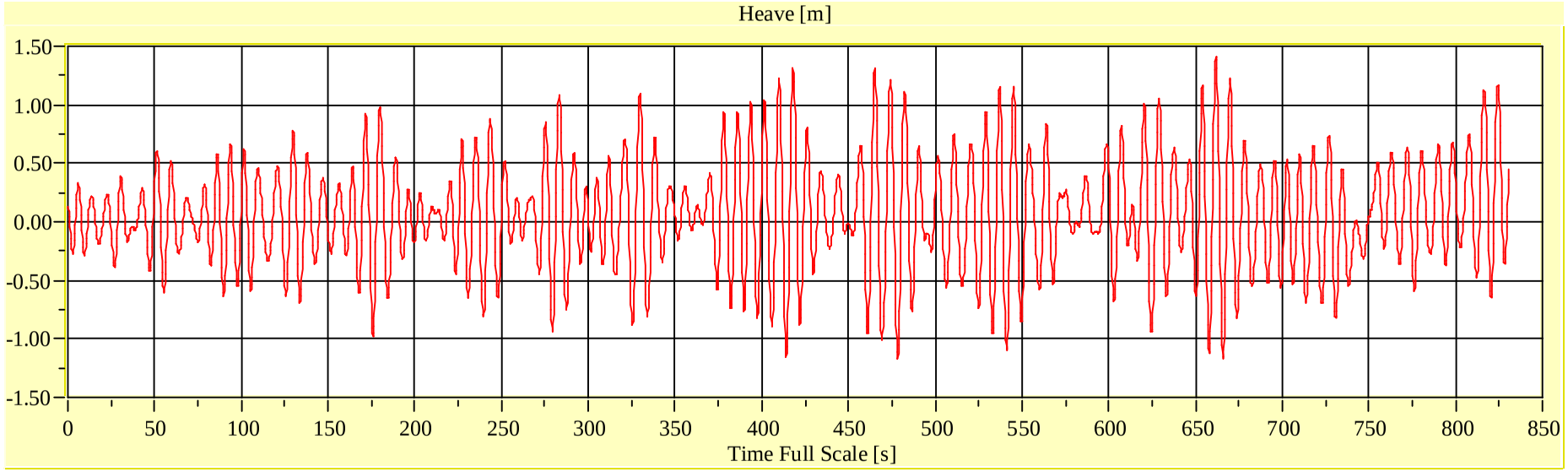


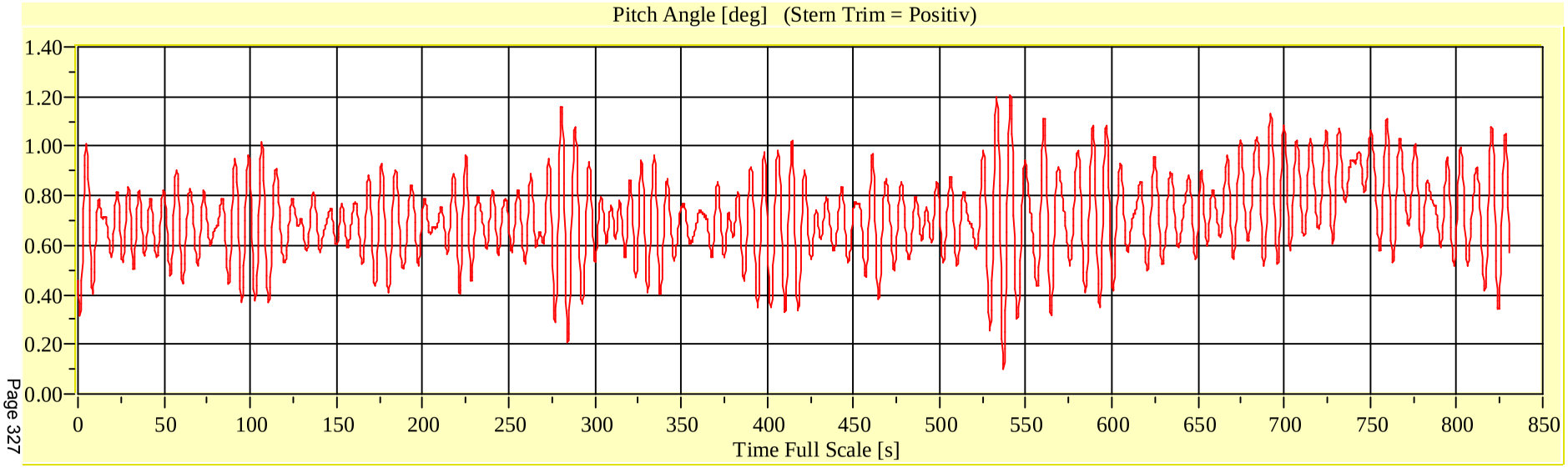


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-07	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

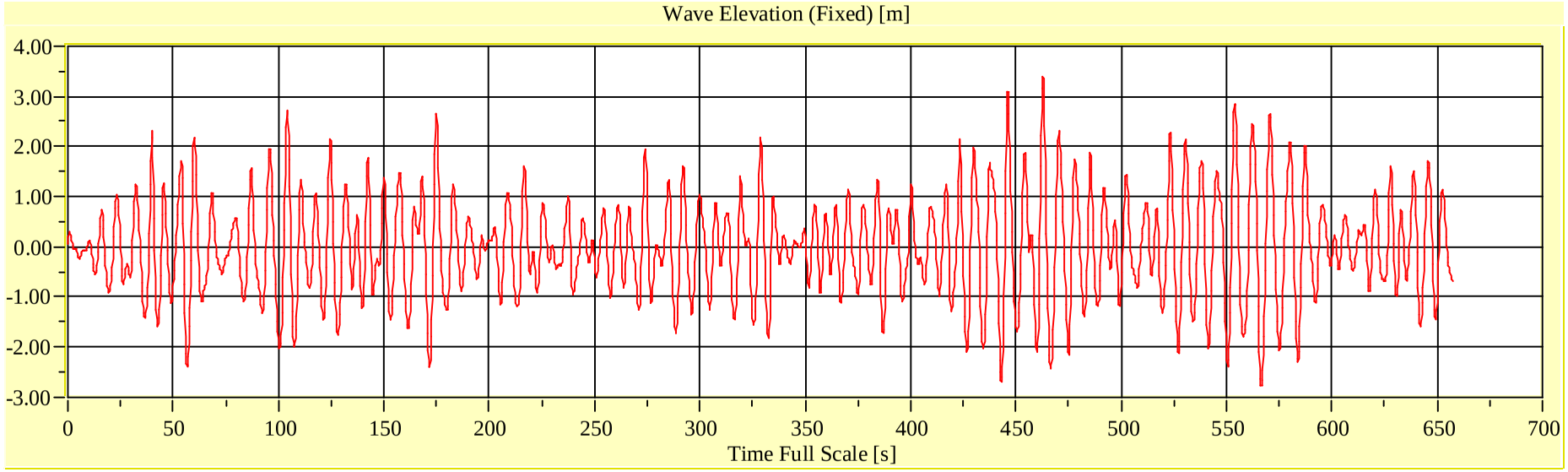


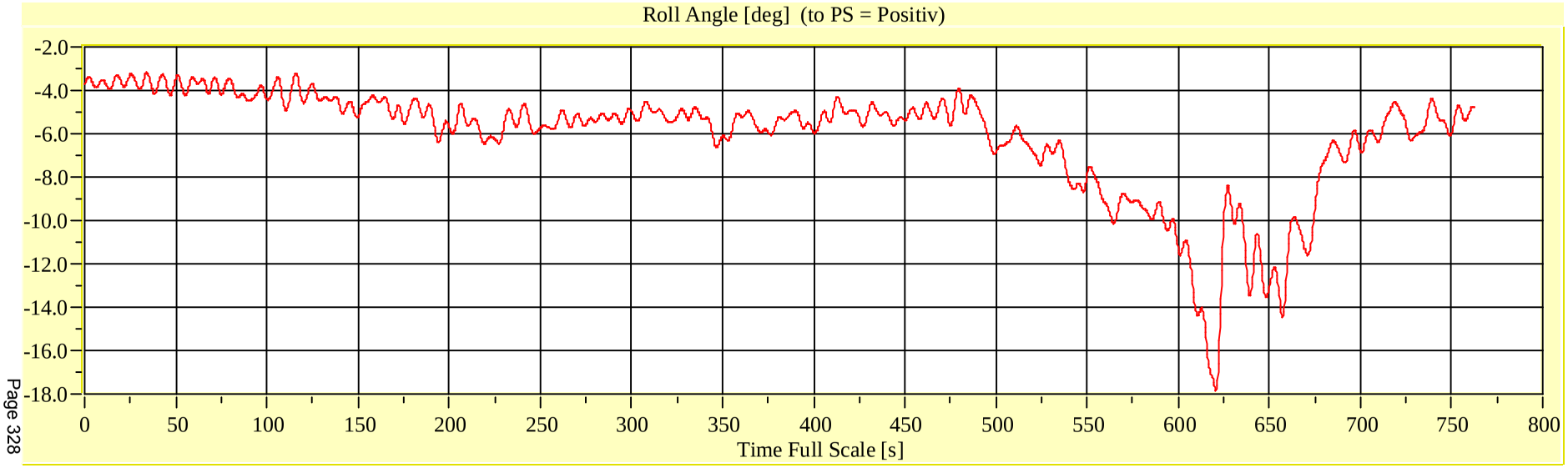


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-08	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

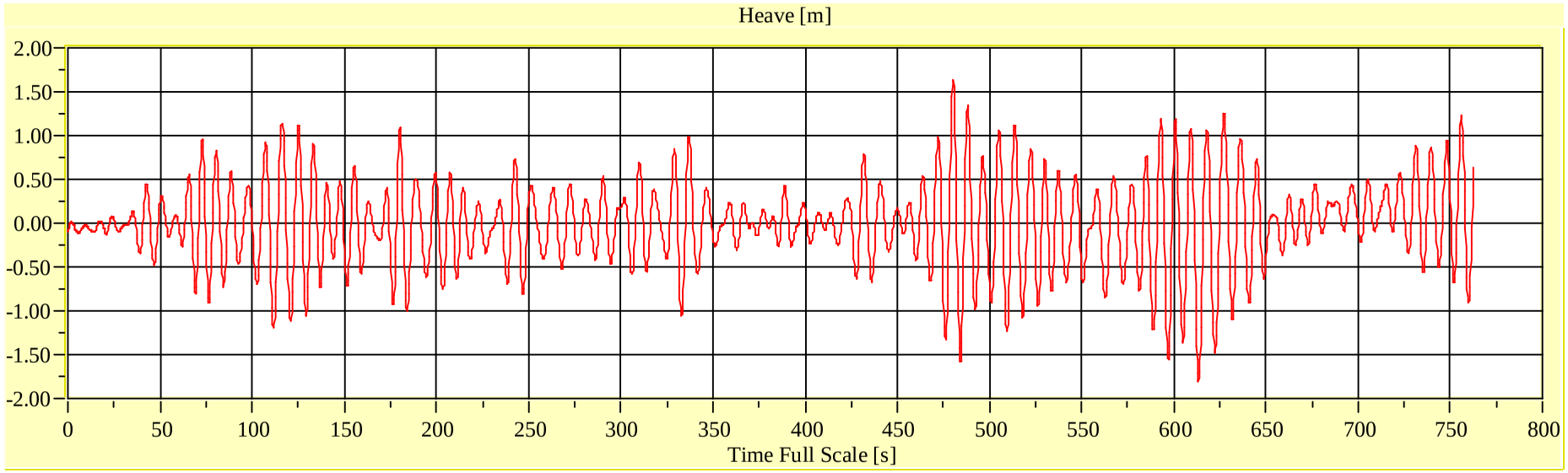


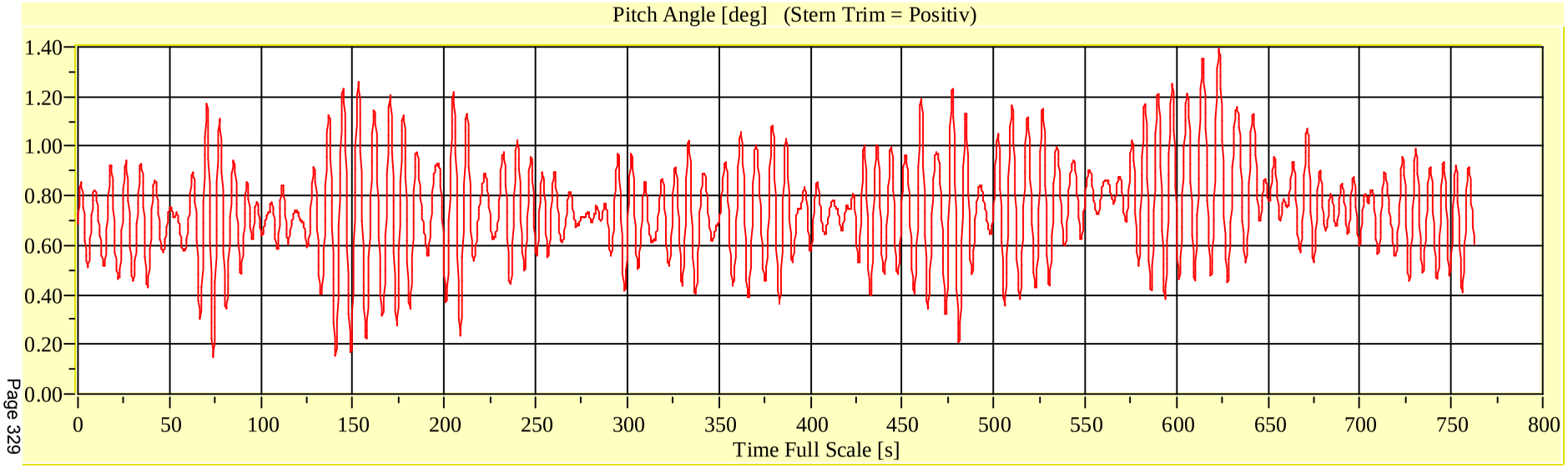


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-08	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

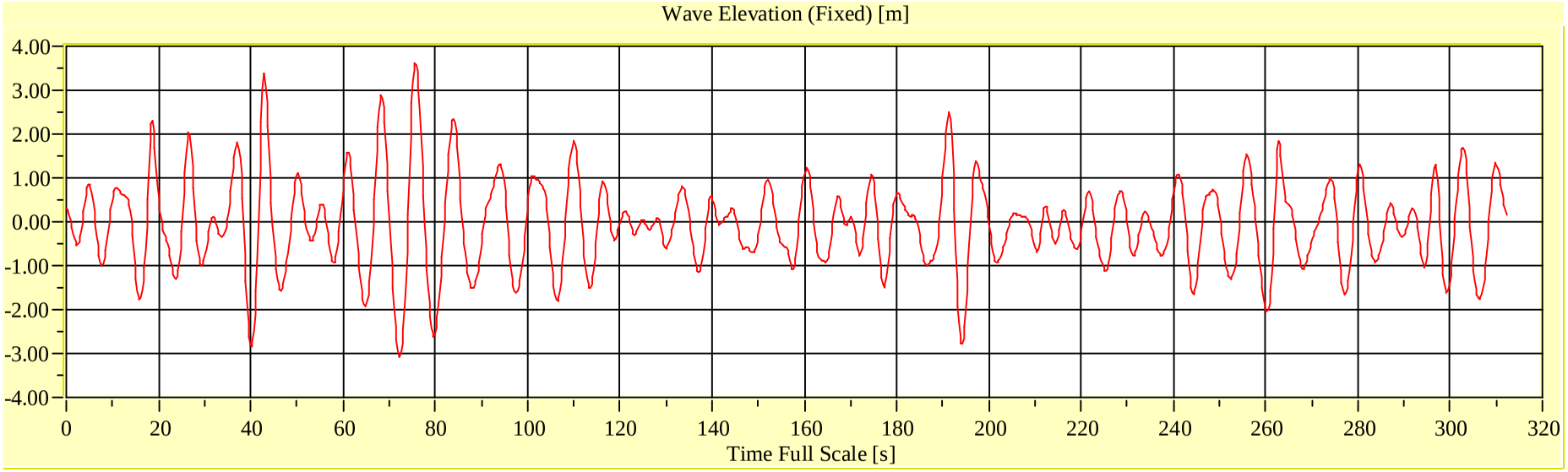


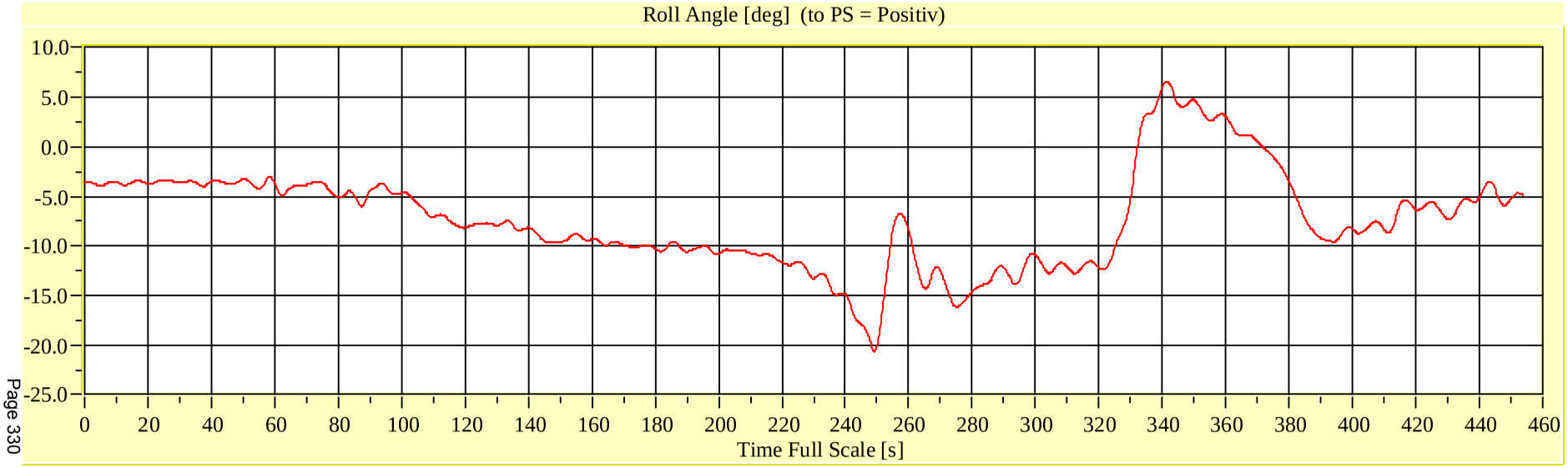


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-09	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3



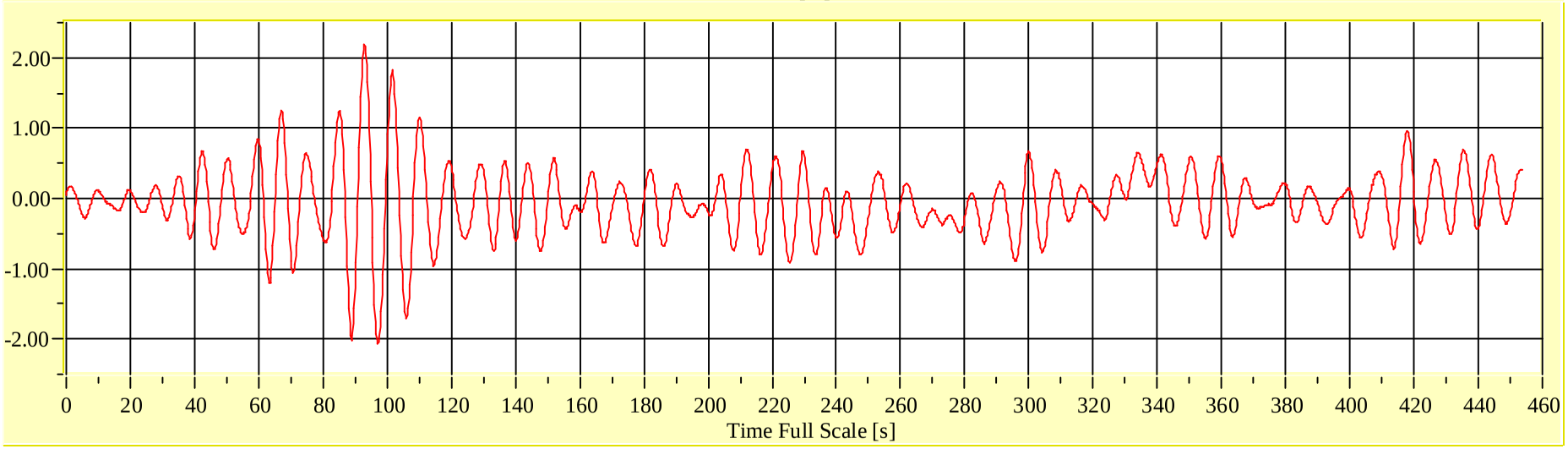


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

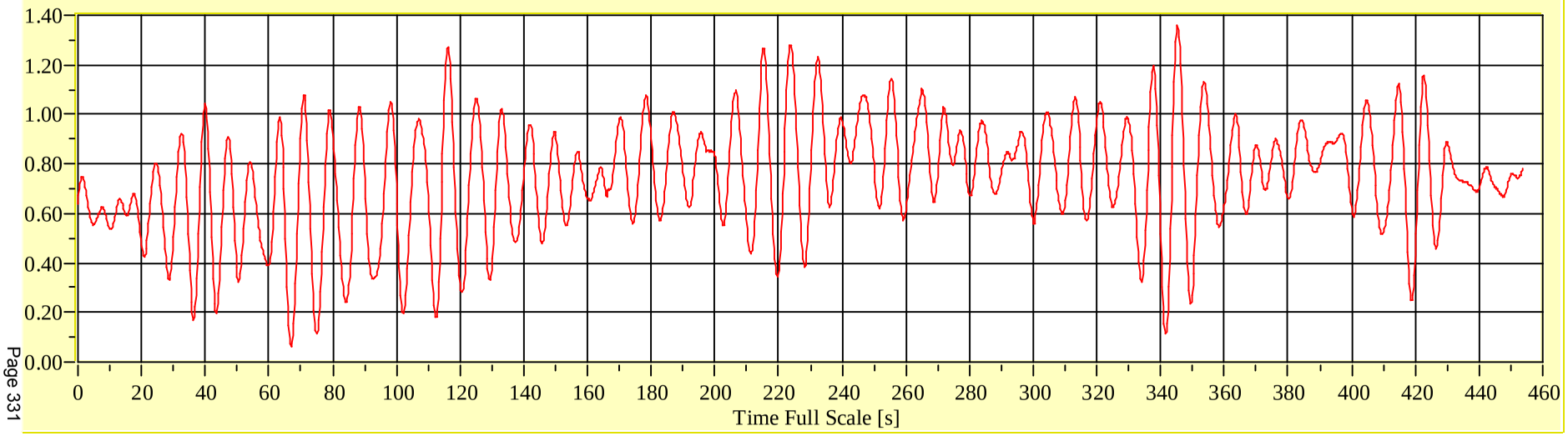
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-09	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

Heave [m]



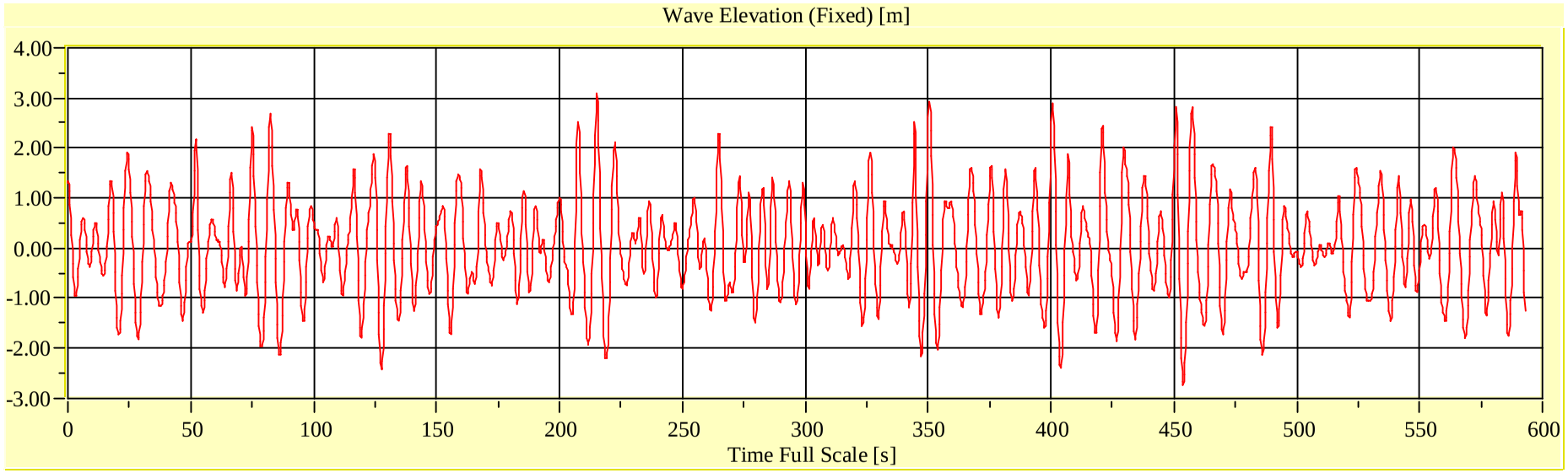
Pitch Angle [deg] (Stern Trim = Positiv)

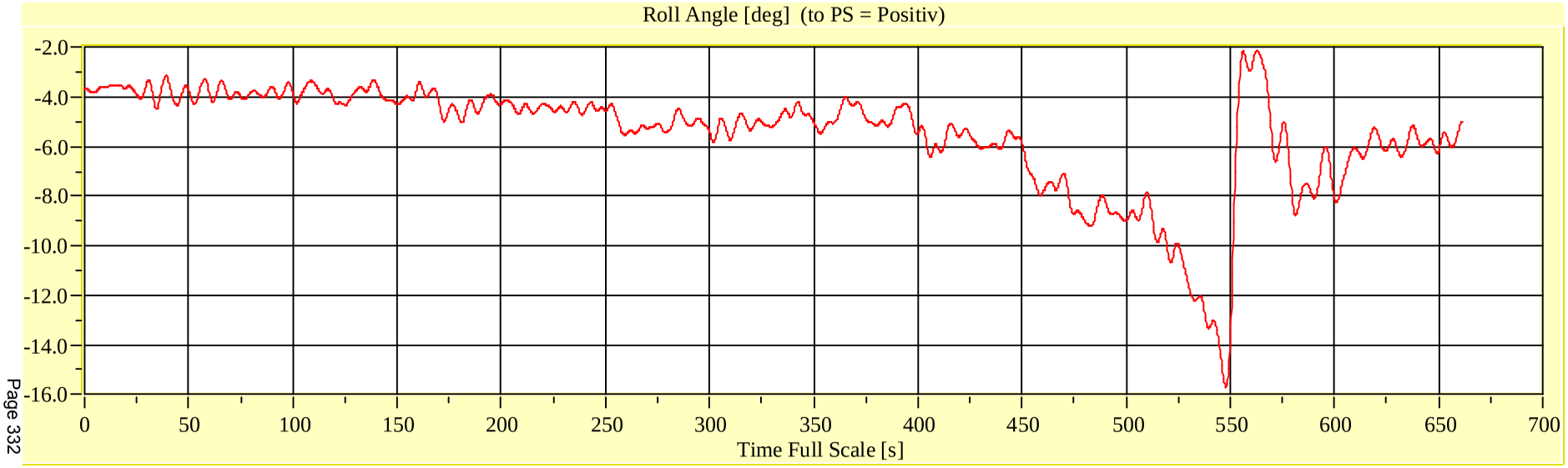


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-10	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3



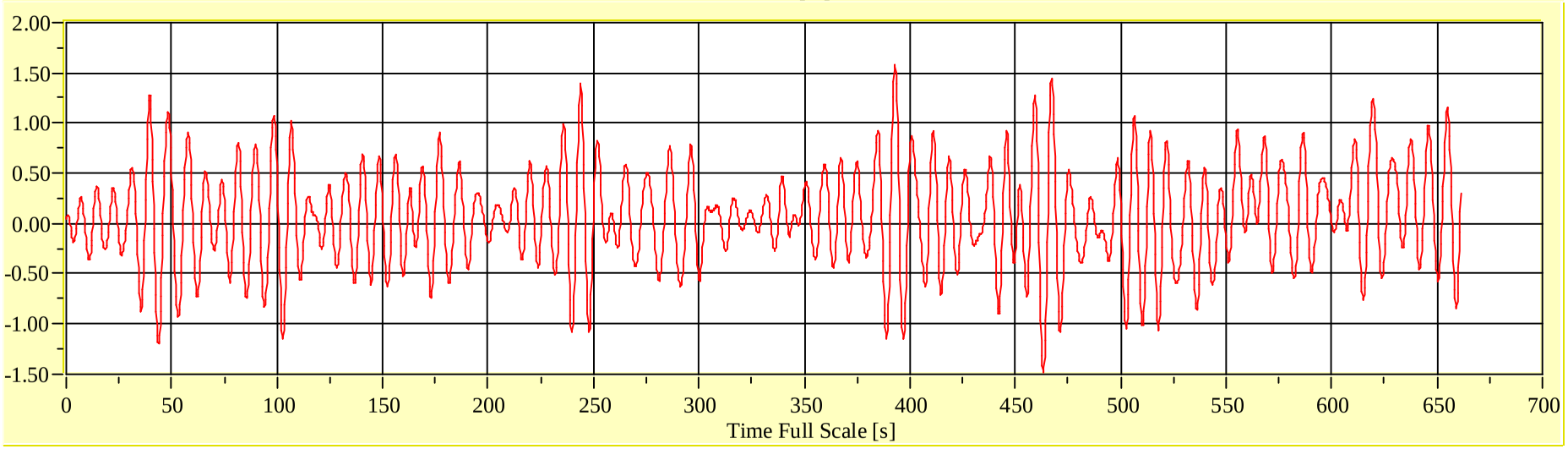


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

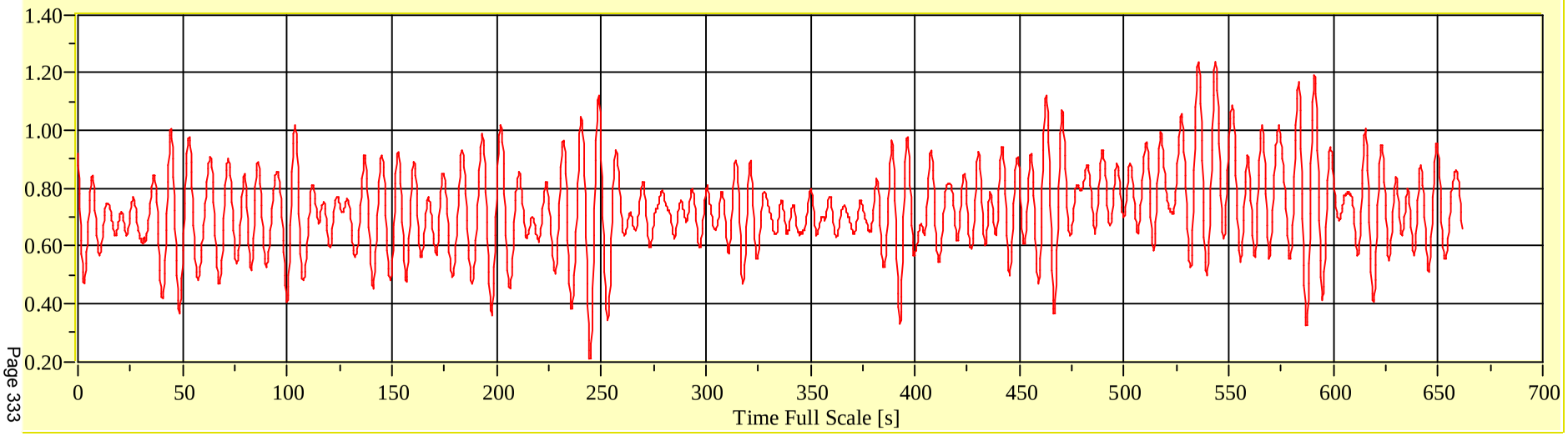
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29712-10	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

Heave [m]



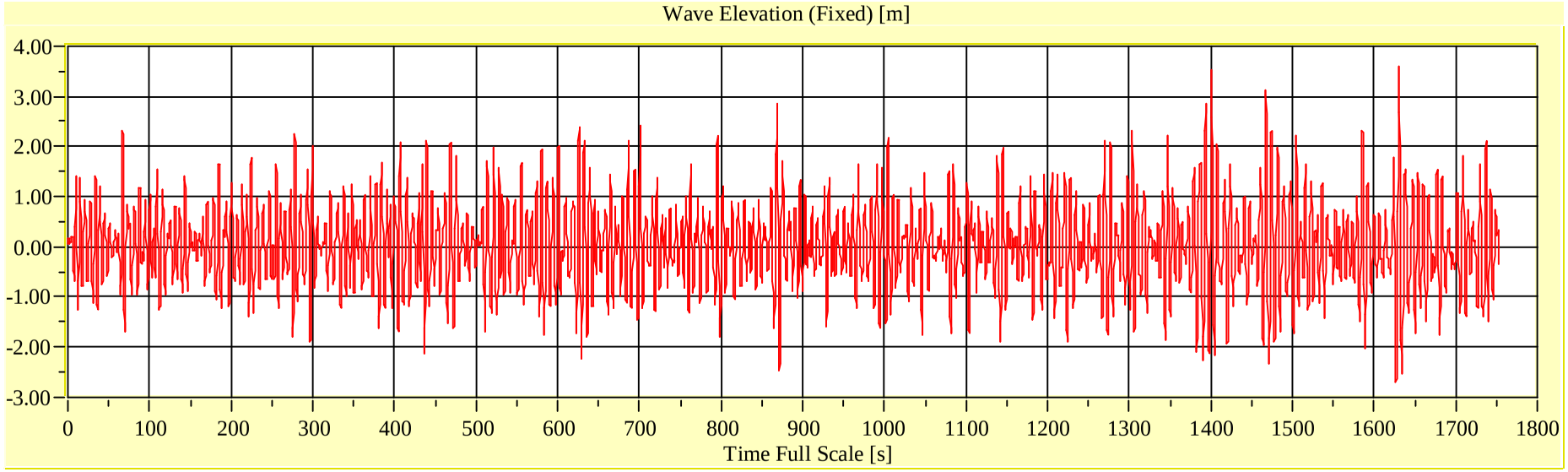
Pitch Angle [deg] (Stern Trim = Positiv)

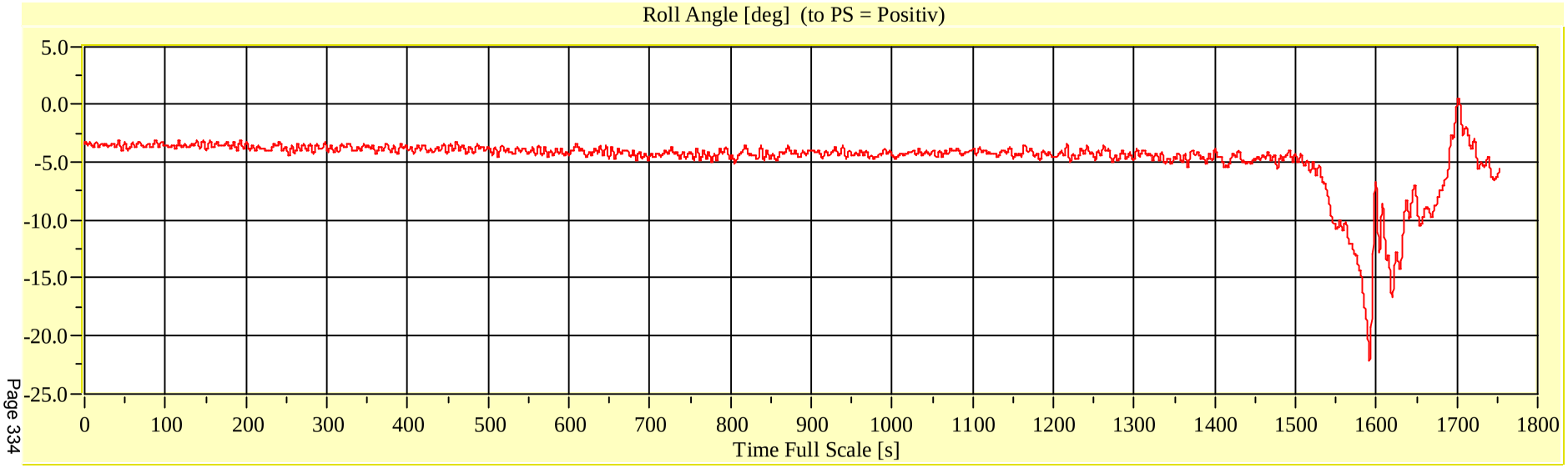


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-01	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

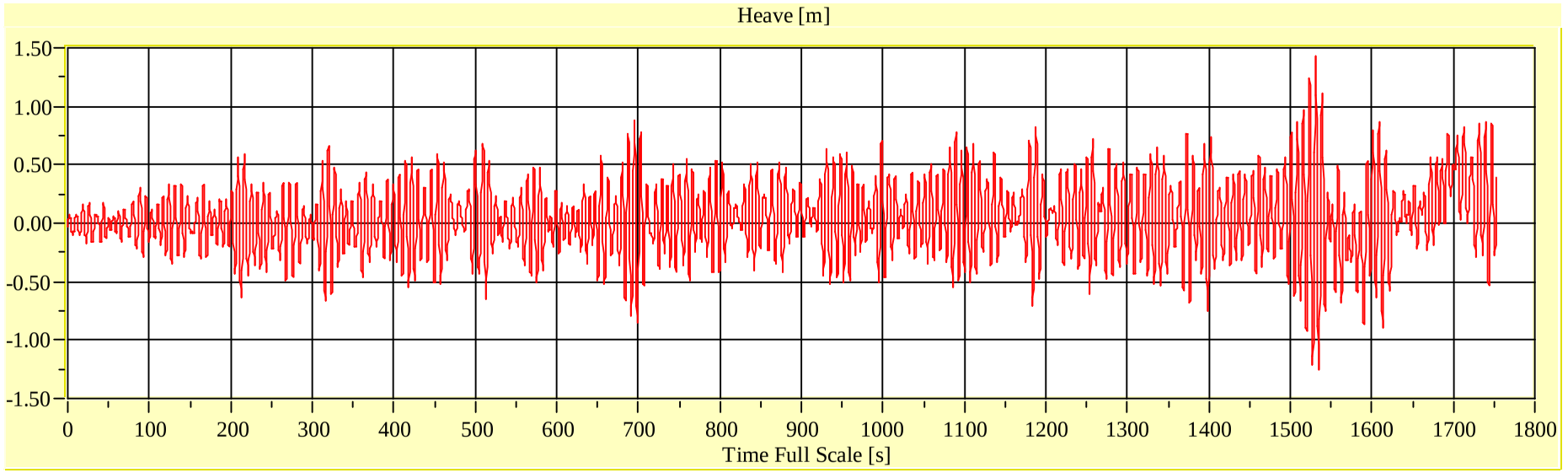


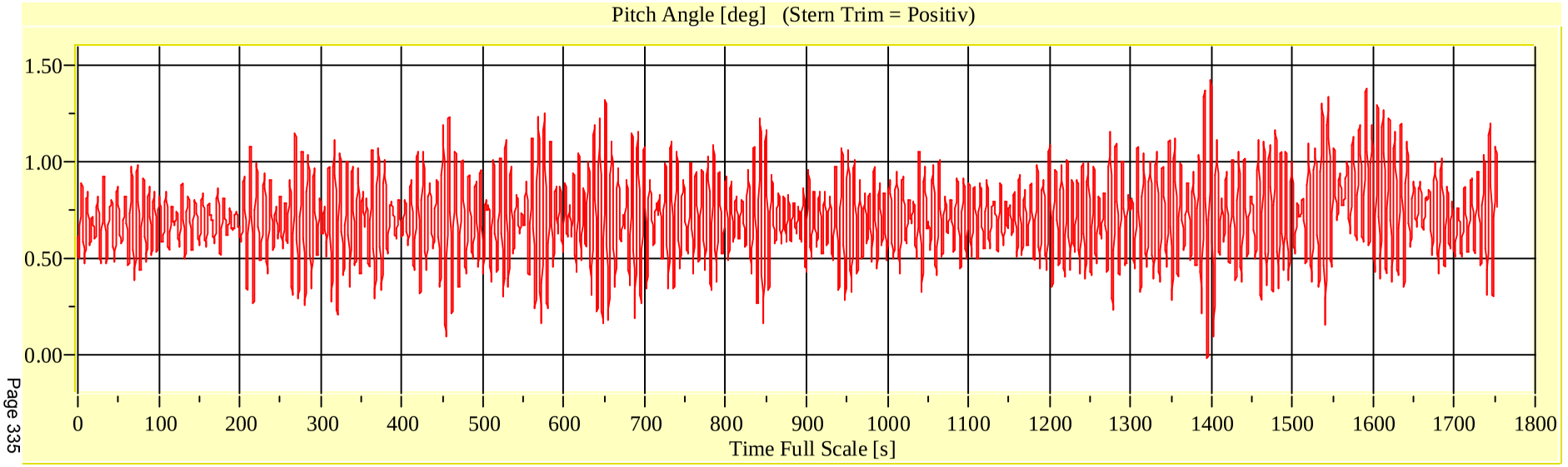


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-01	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

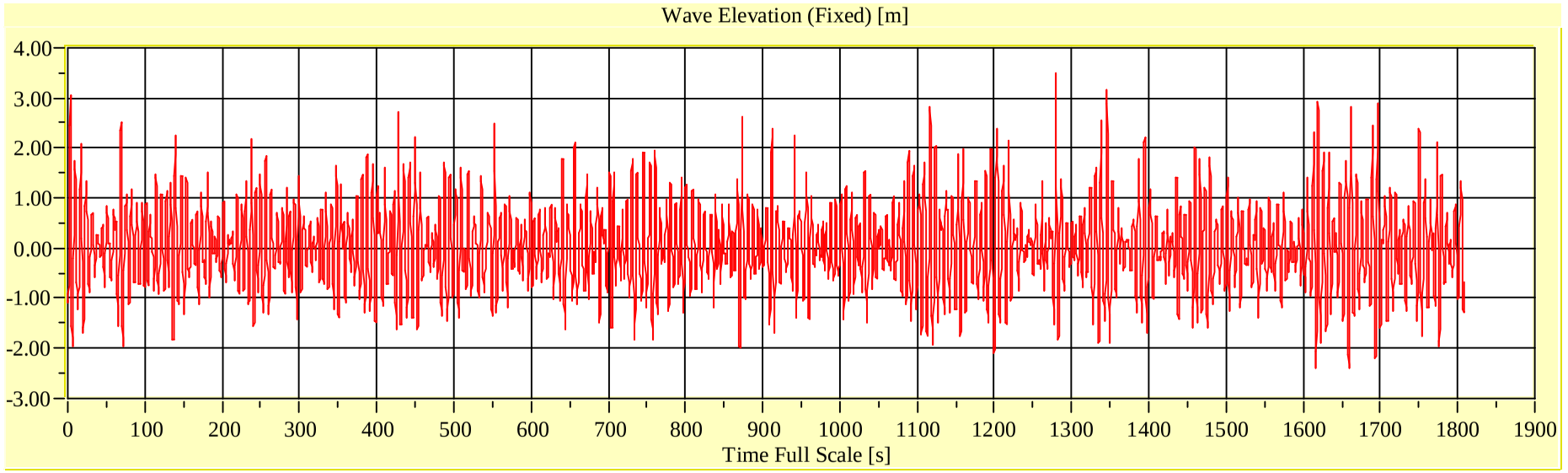


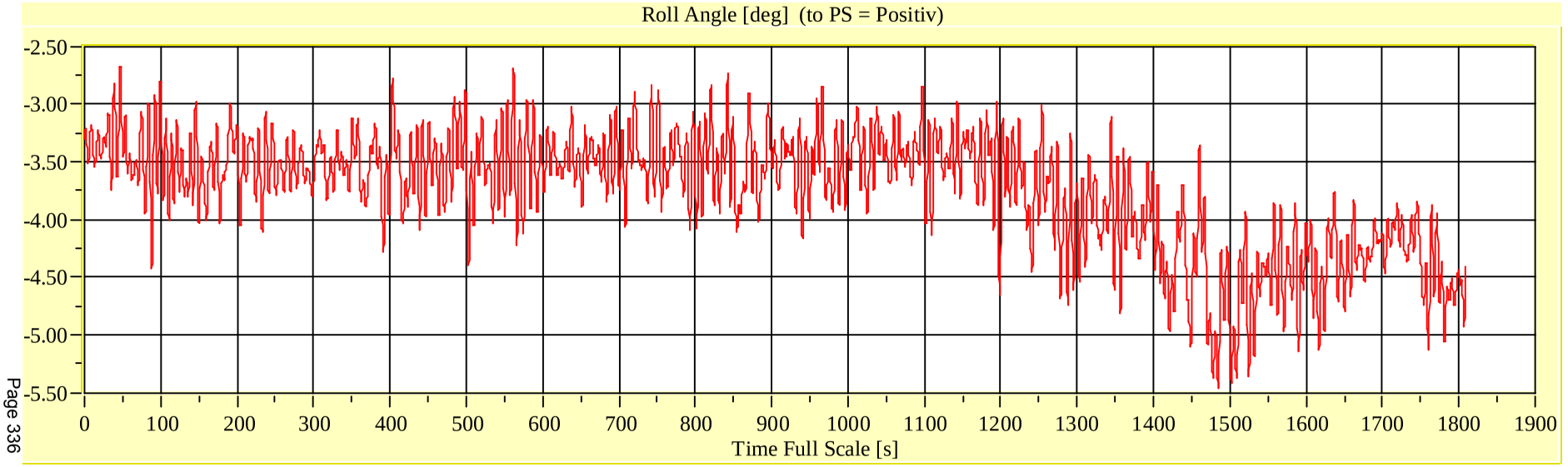


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-02	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

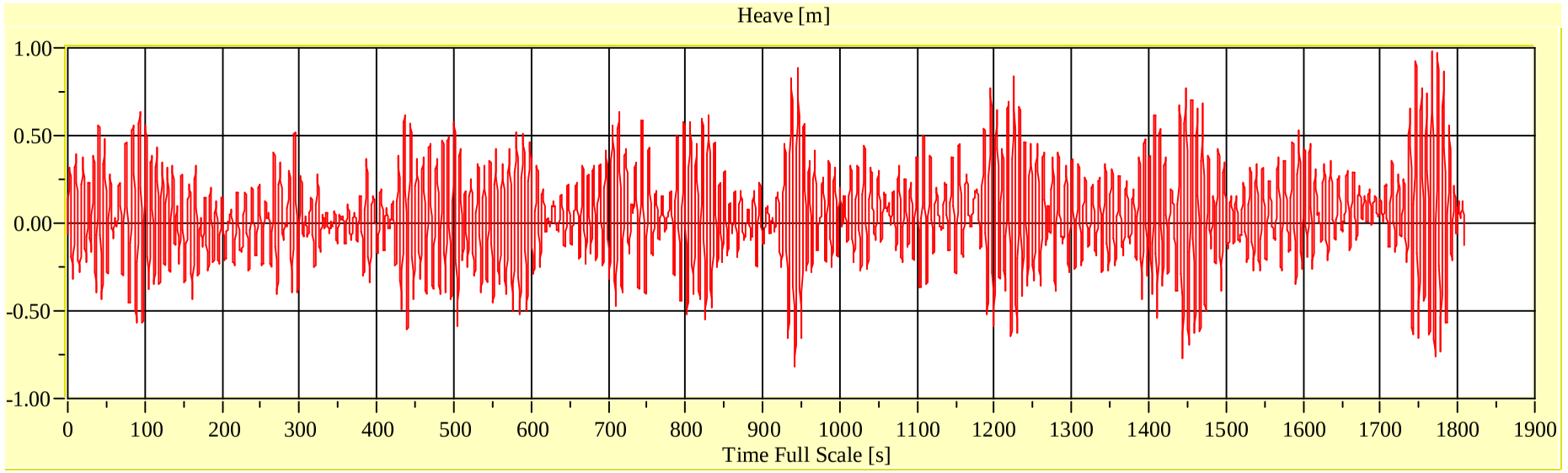


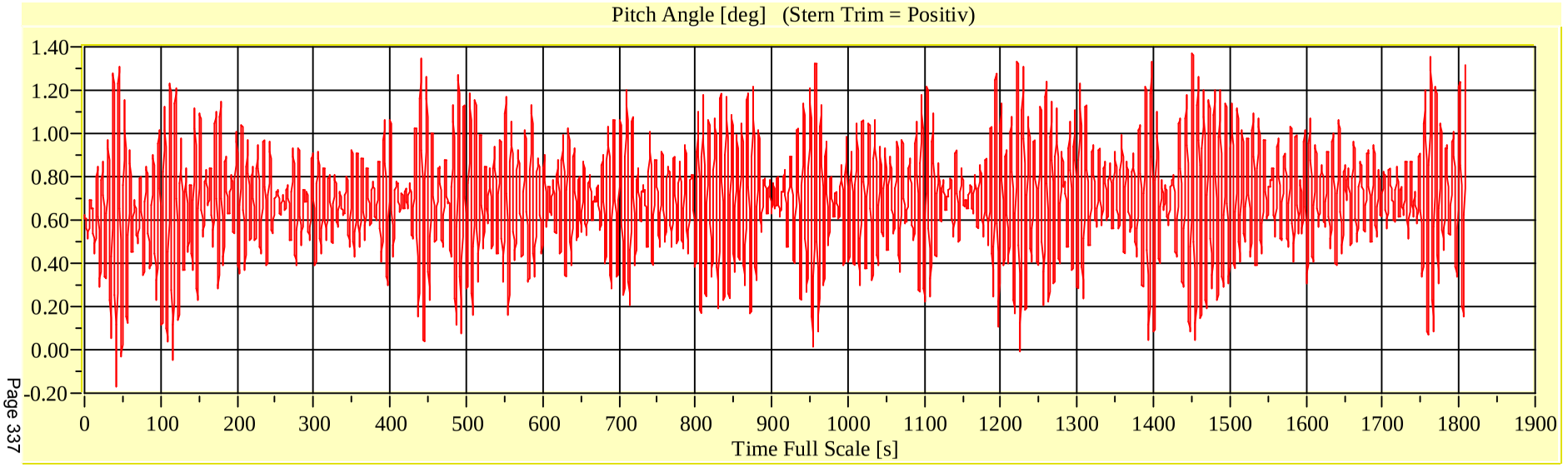


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-02	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

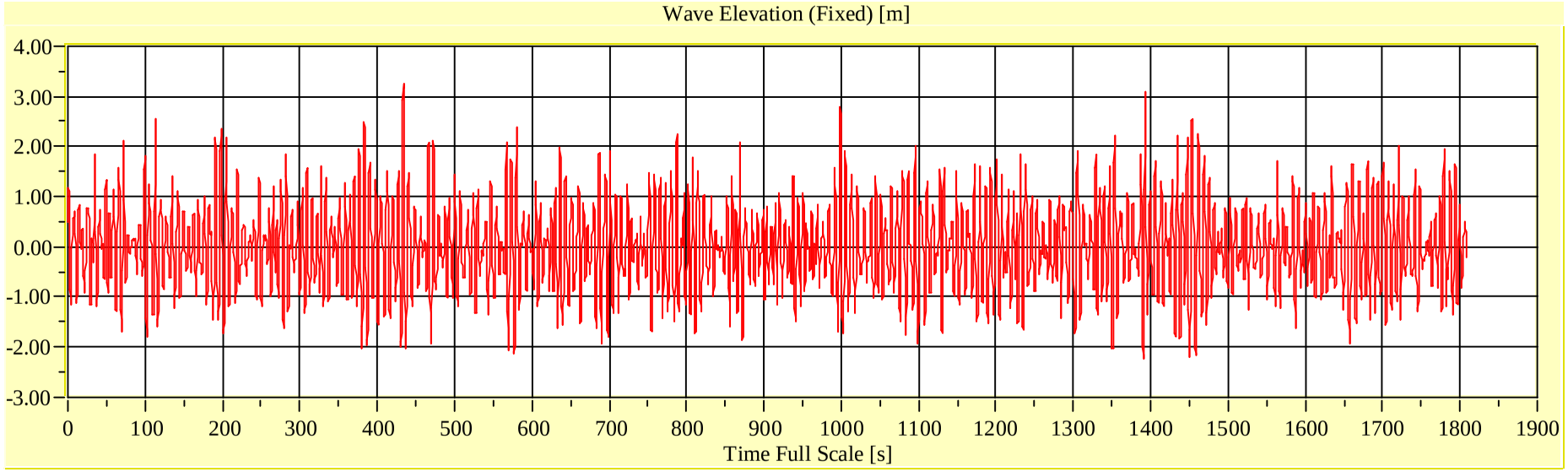


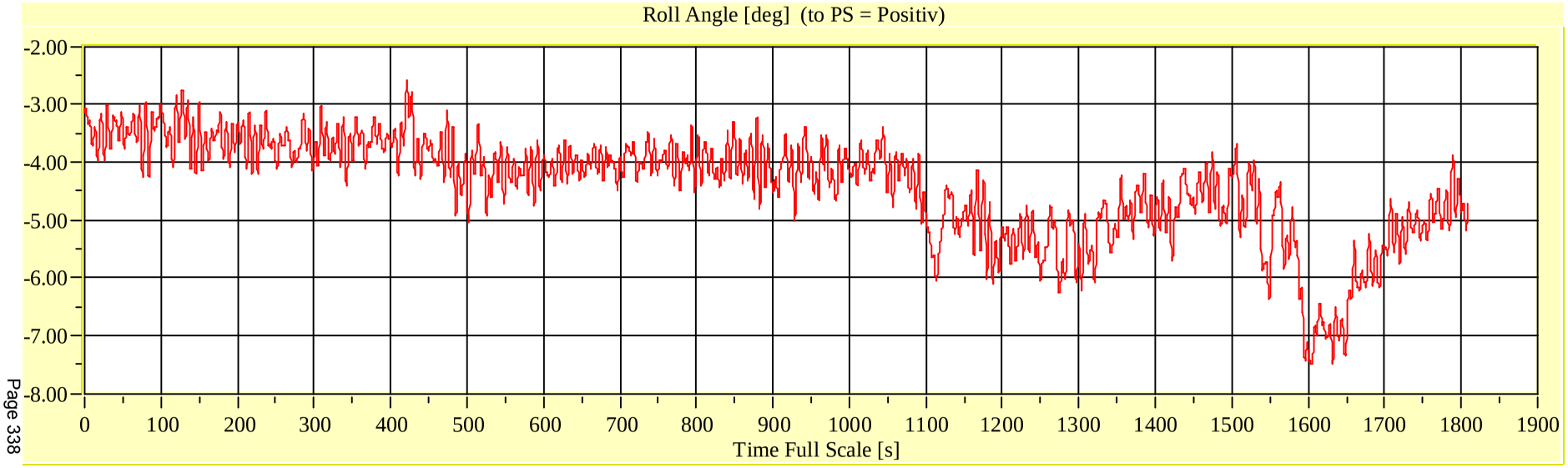


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-03	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

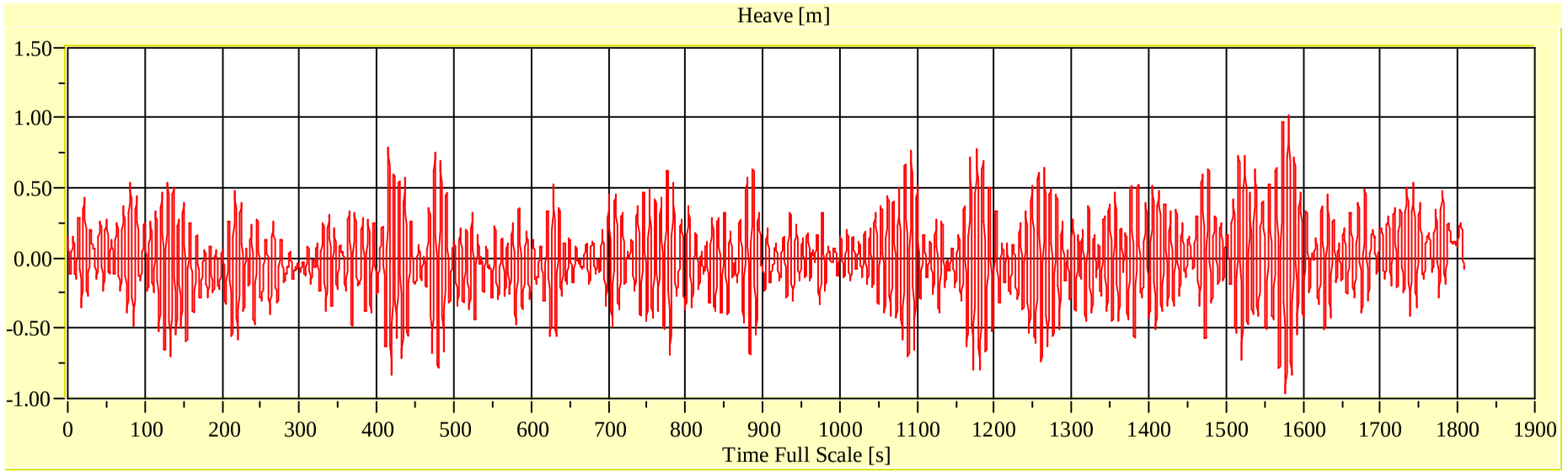


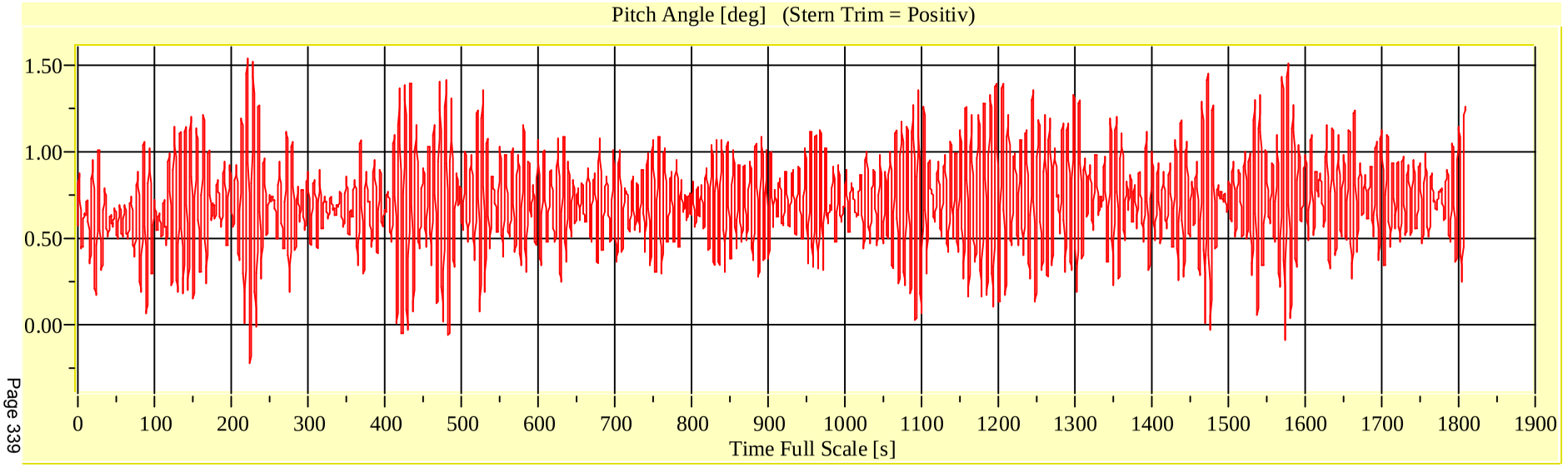


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-03	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

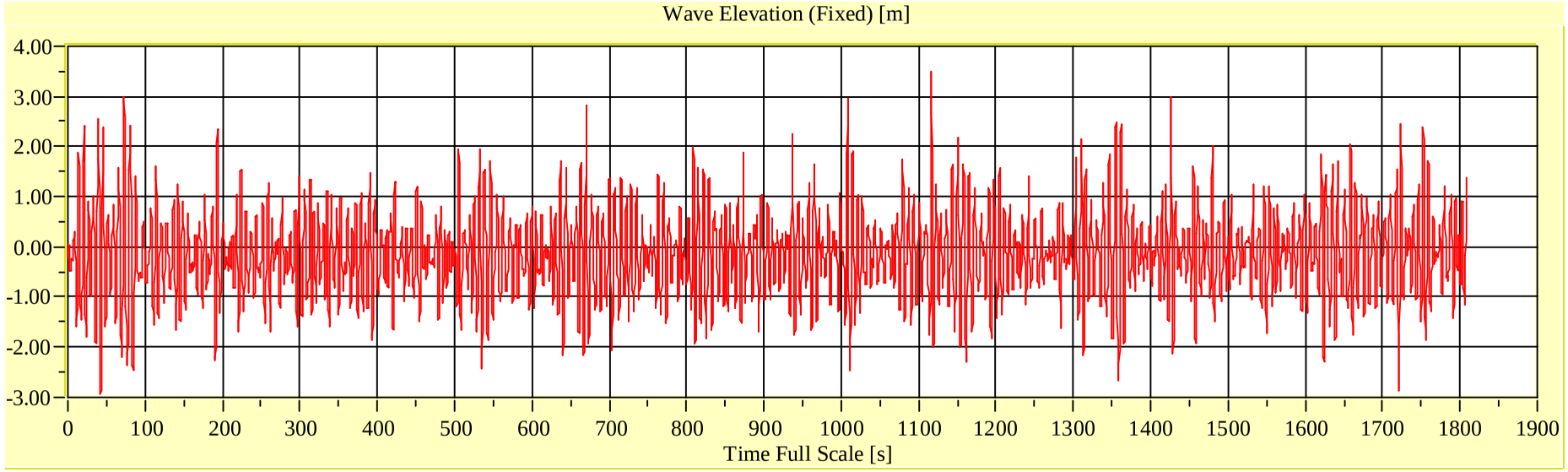


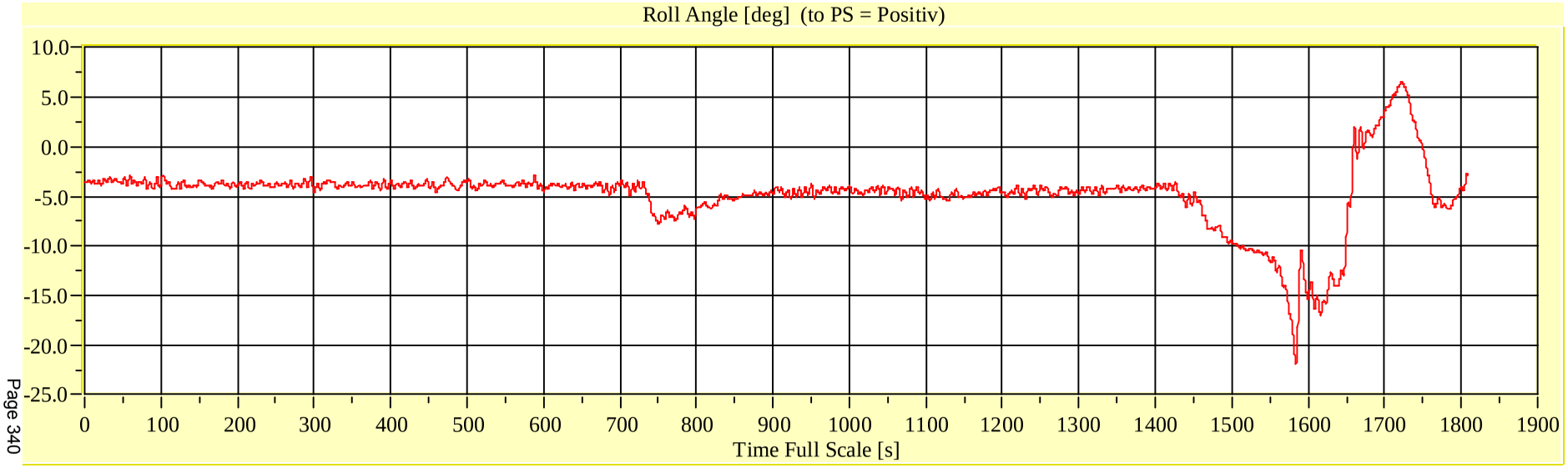


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-04	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

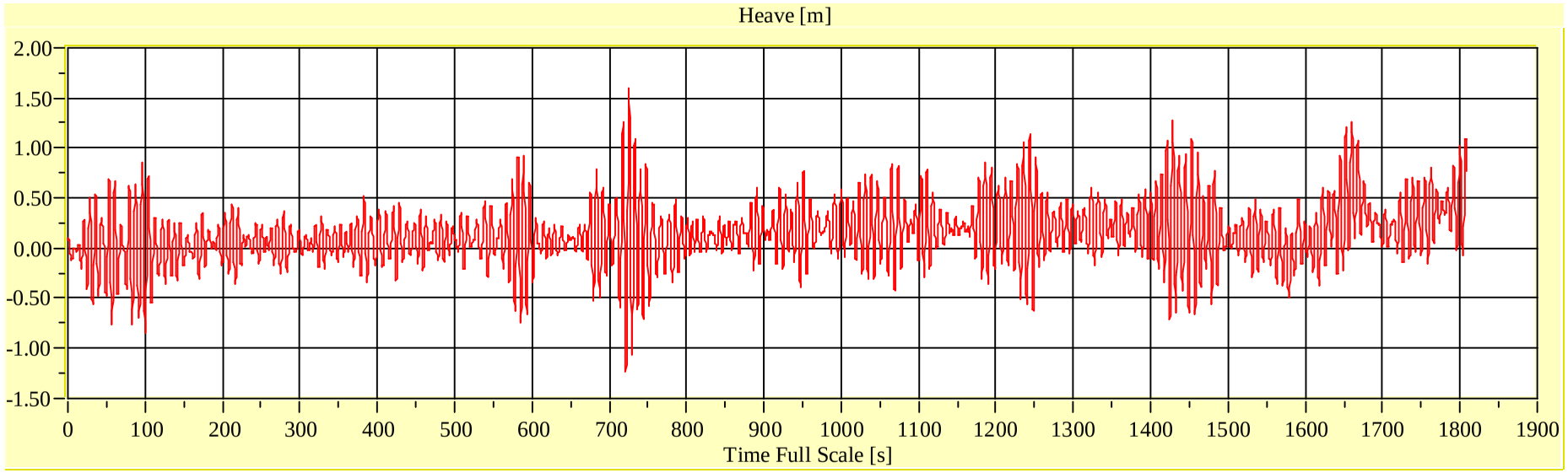


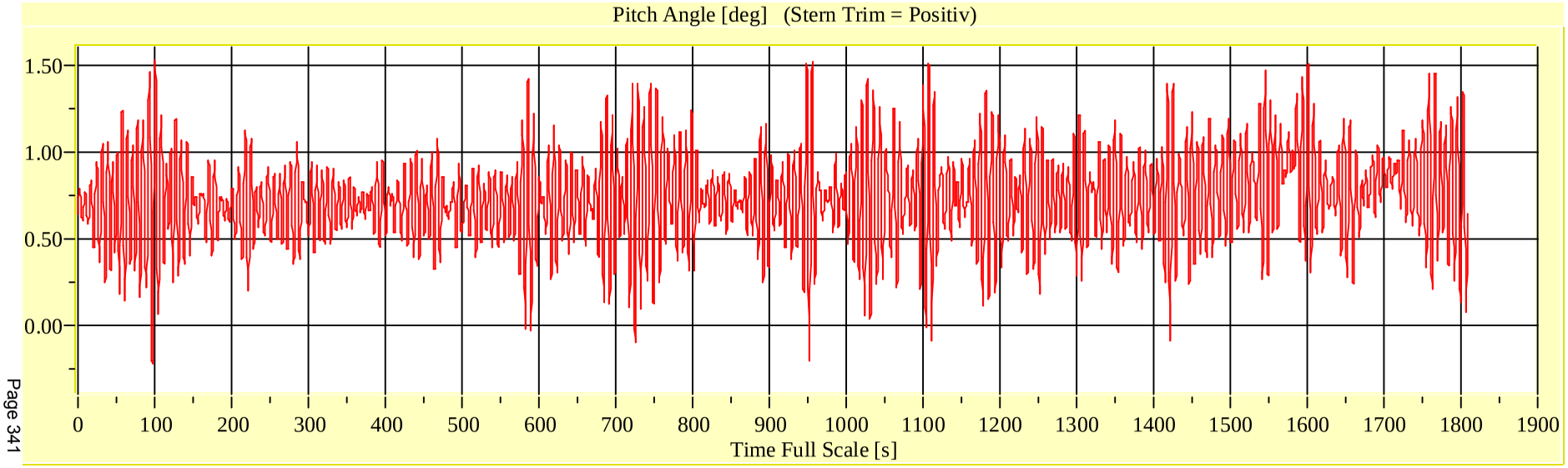


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-04	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

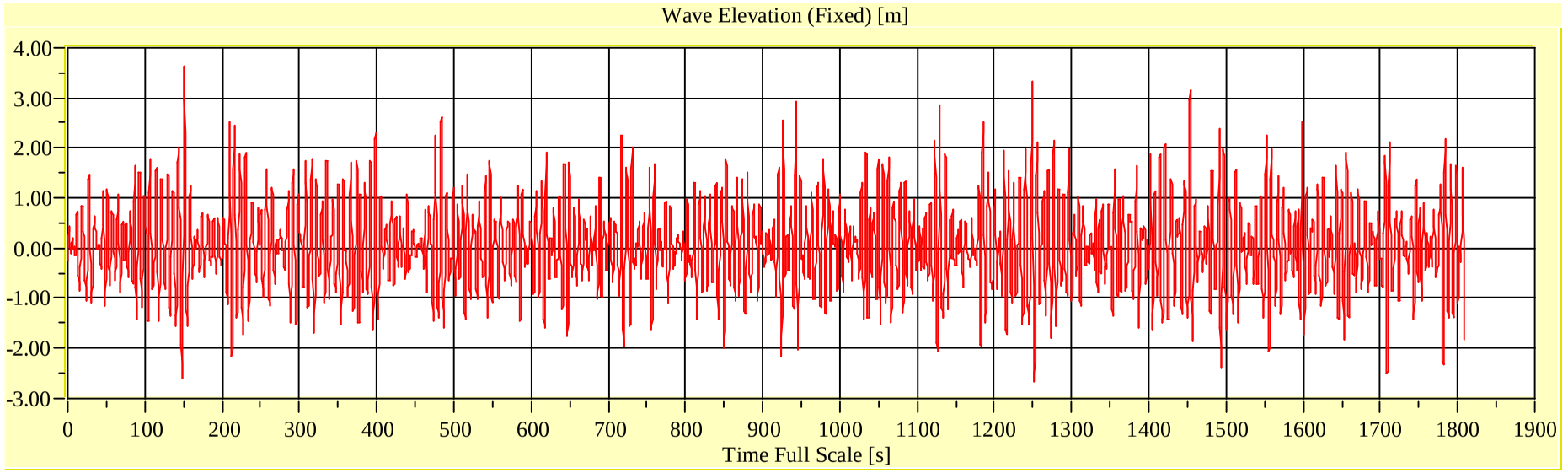


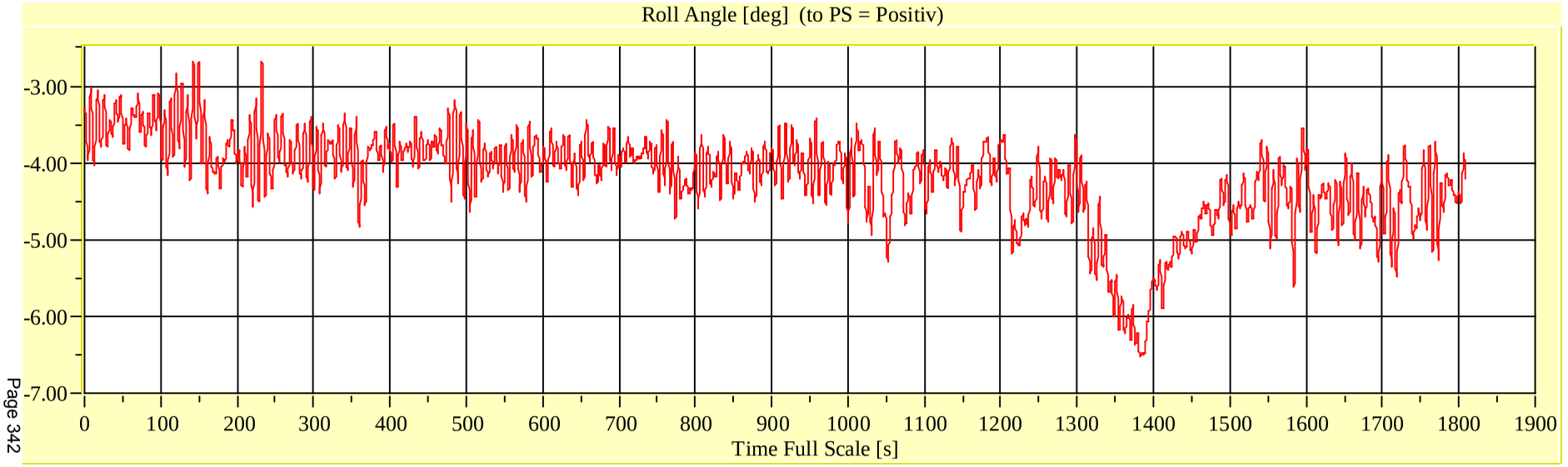


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-05	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

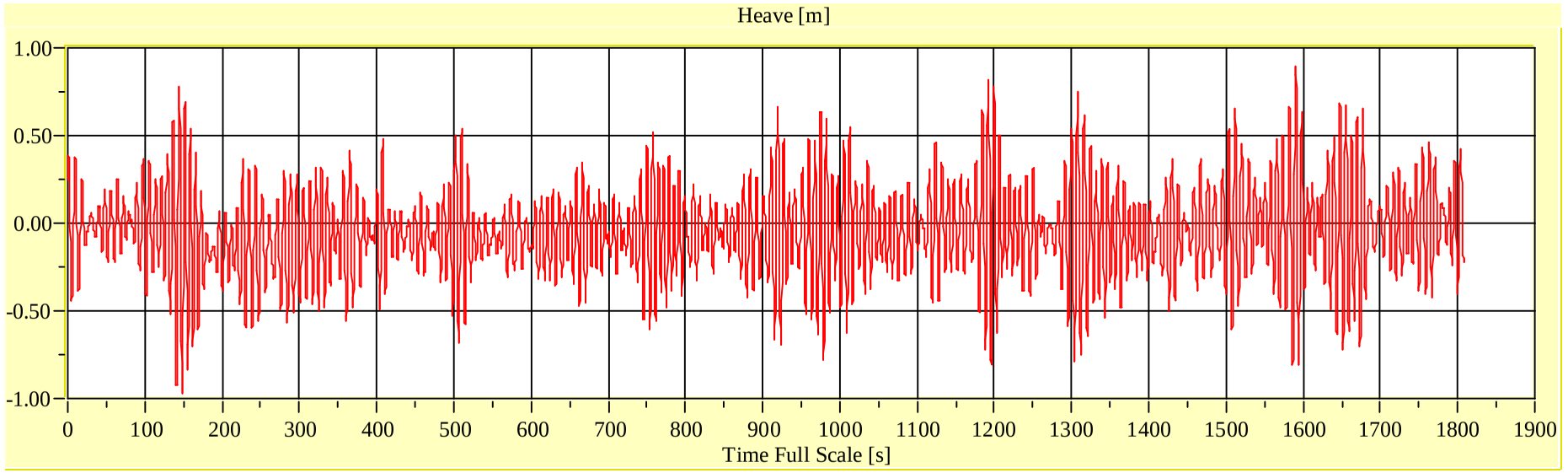


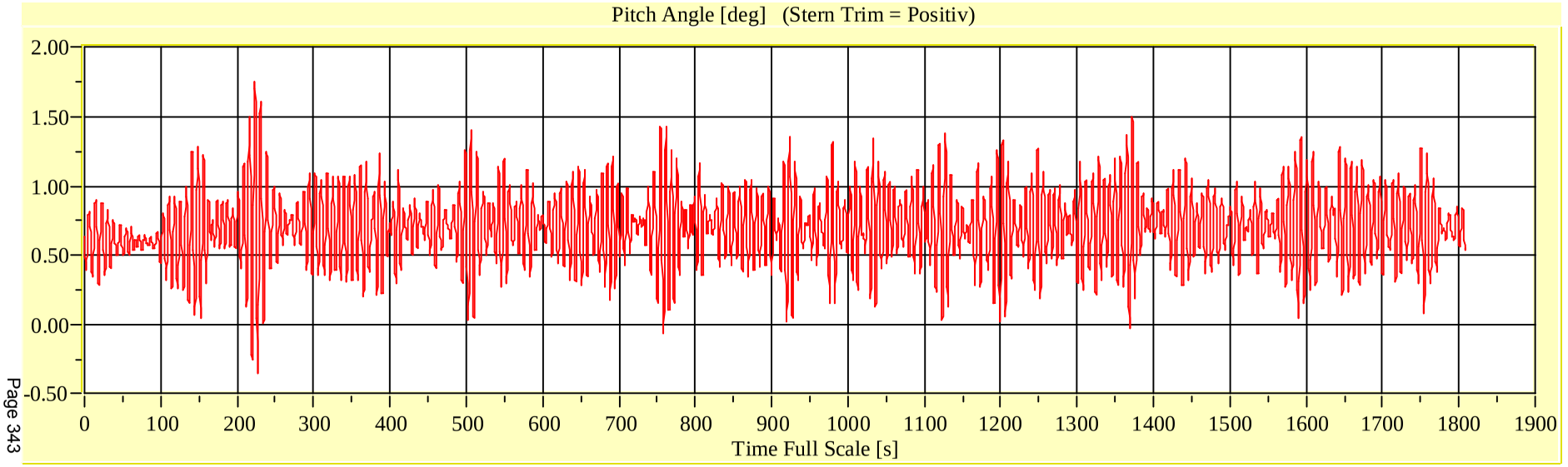


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-05	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

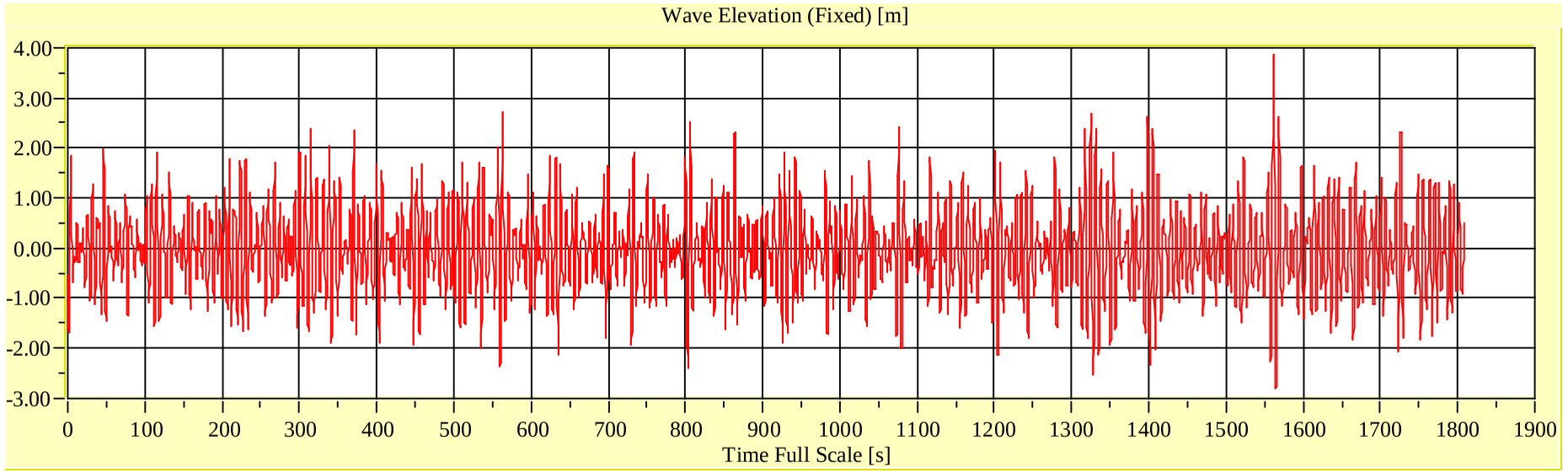


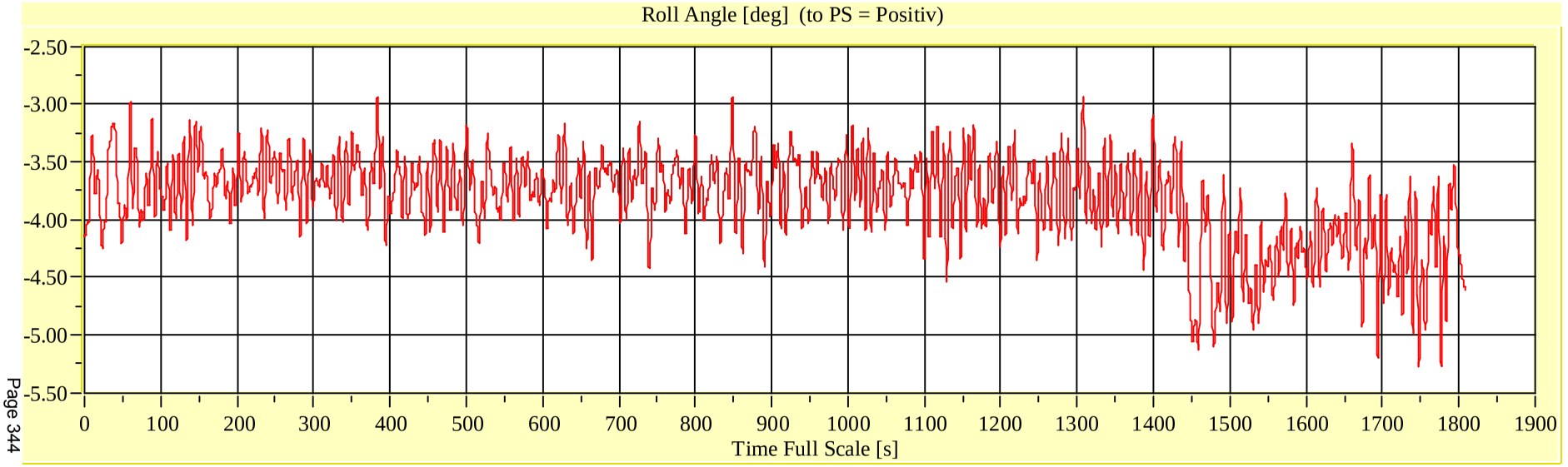


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-06	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

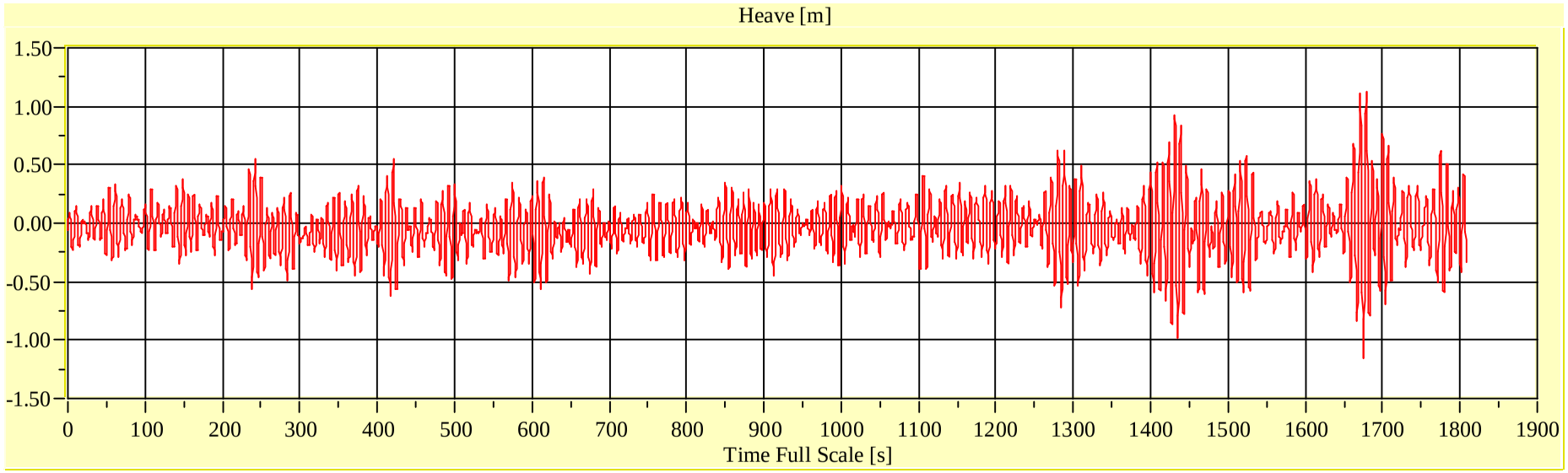


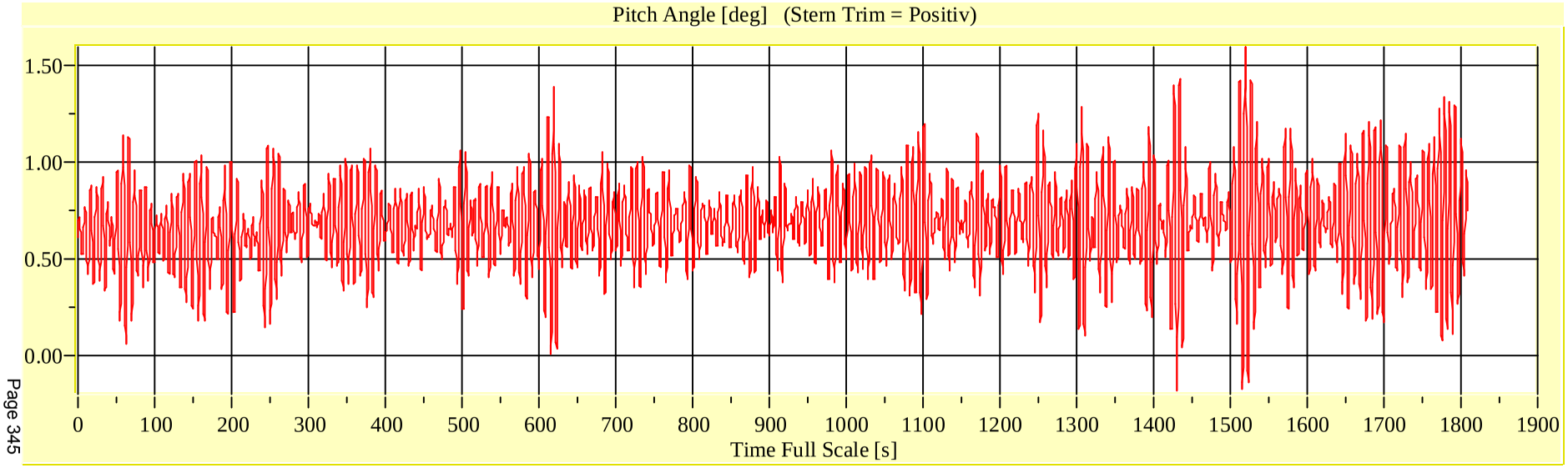


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-06	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

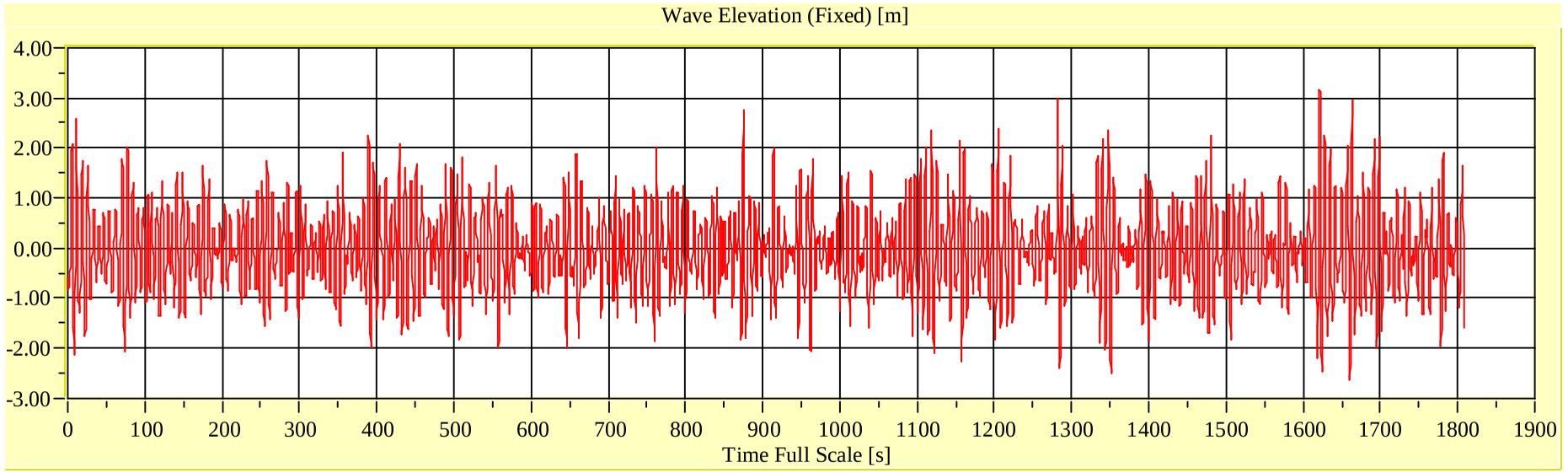


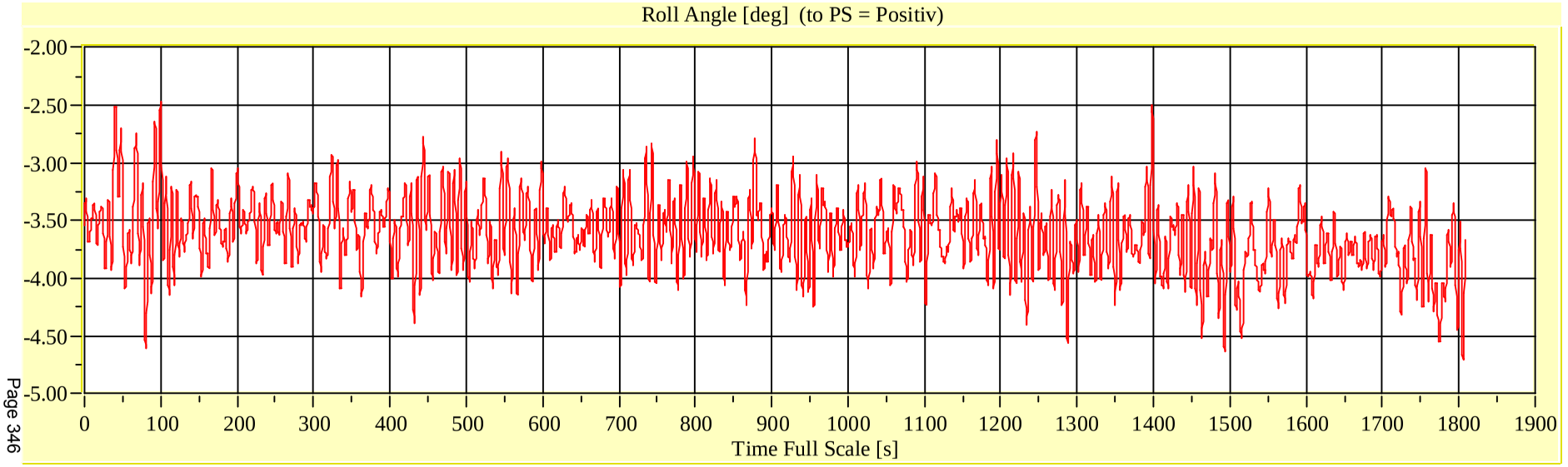


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-07	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

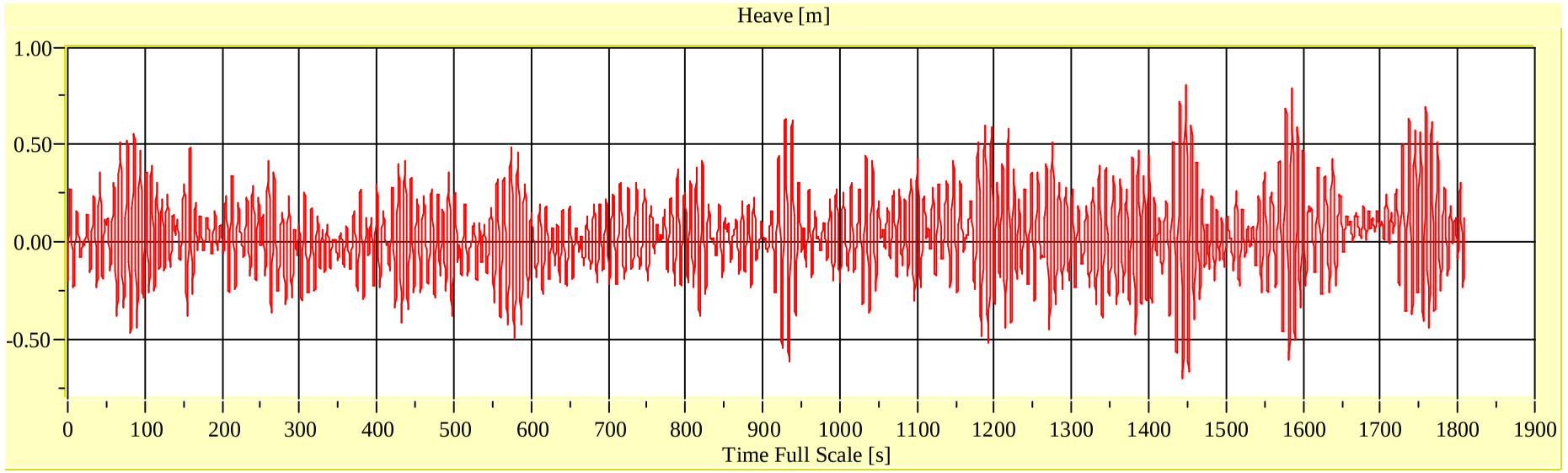


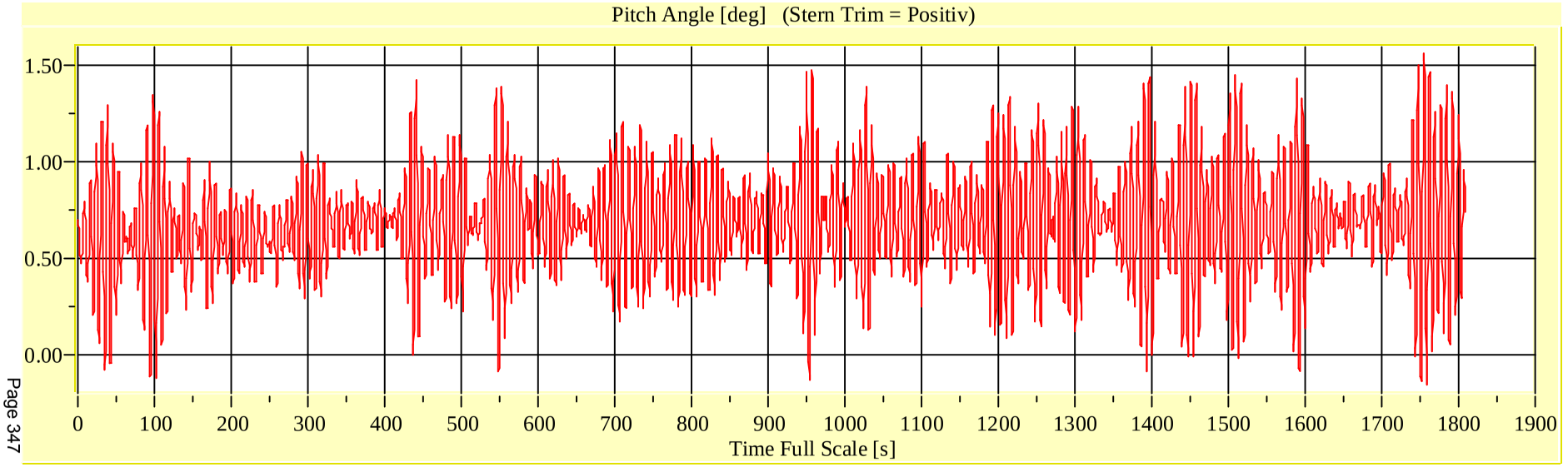


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-07	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

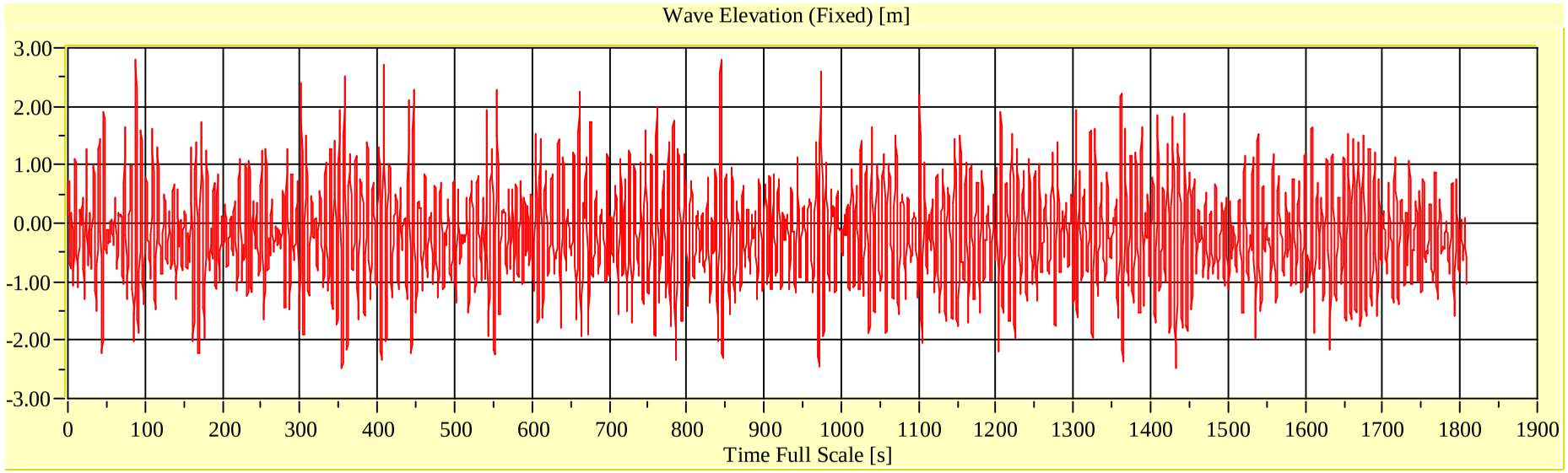


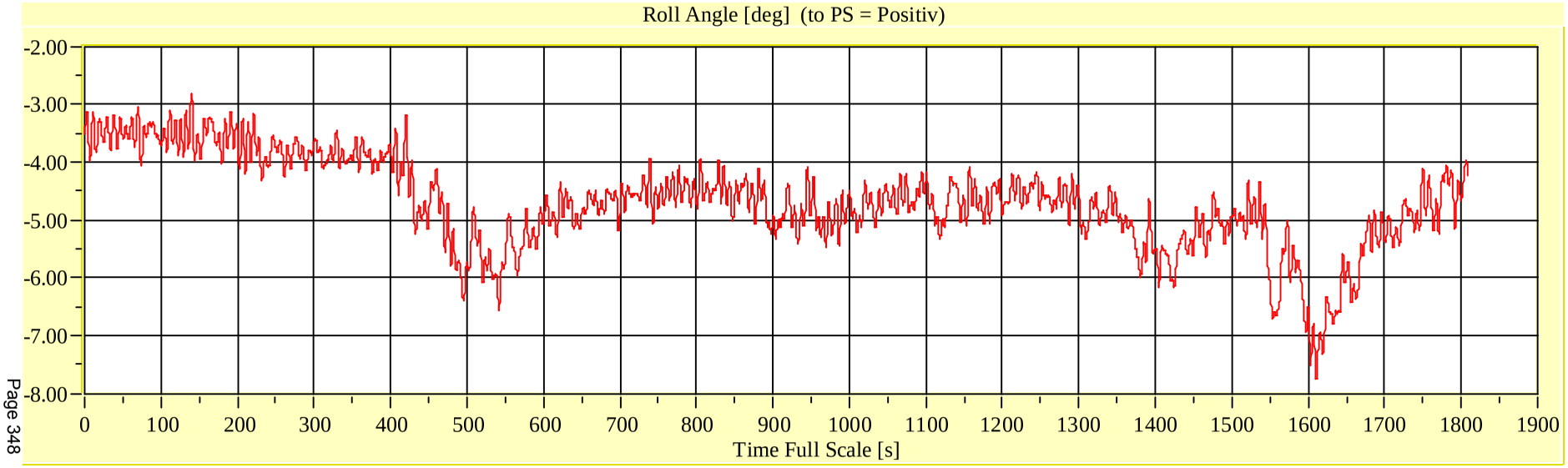


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-08	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

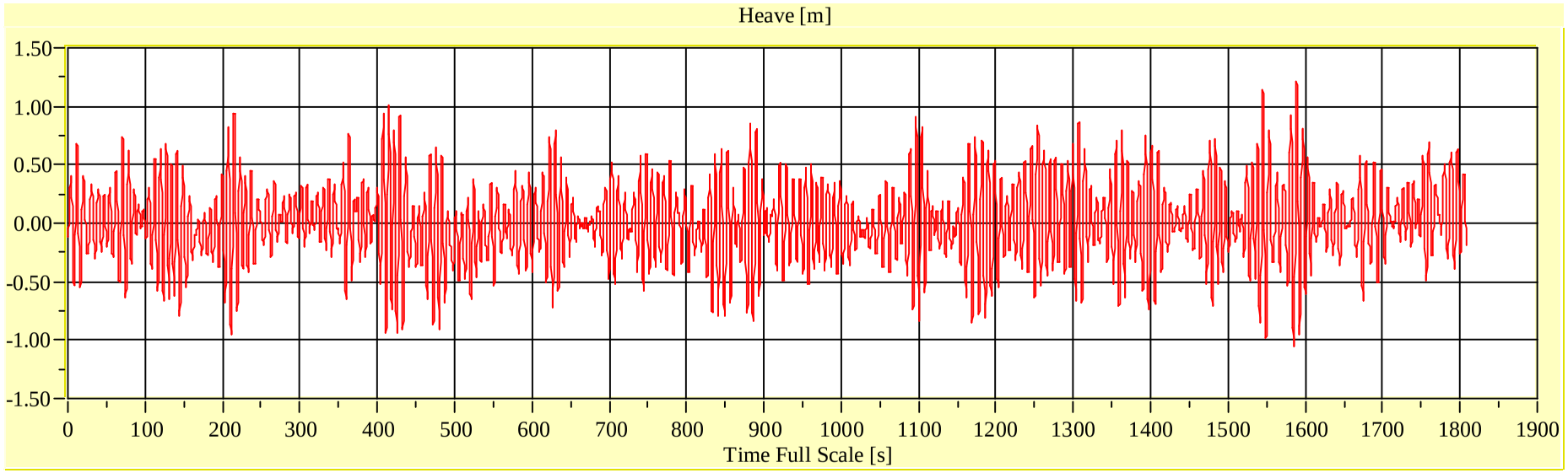


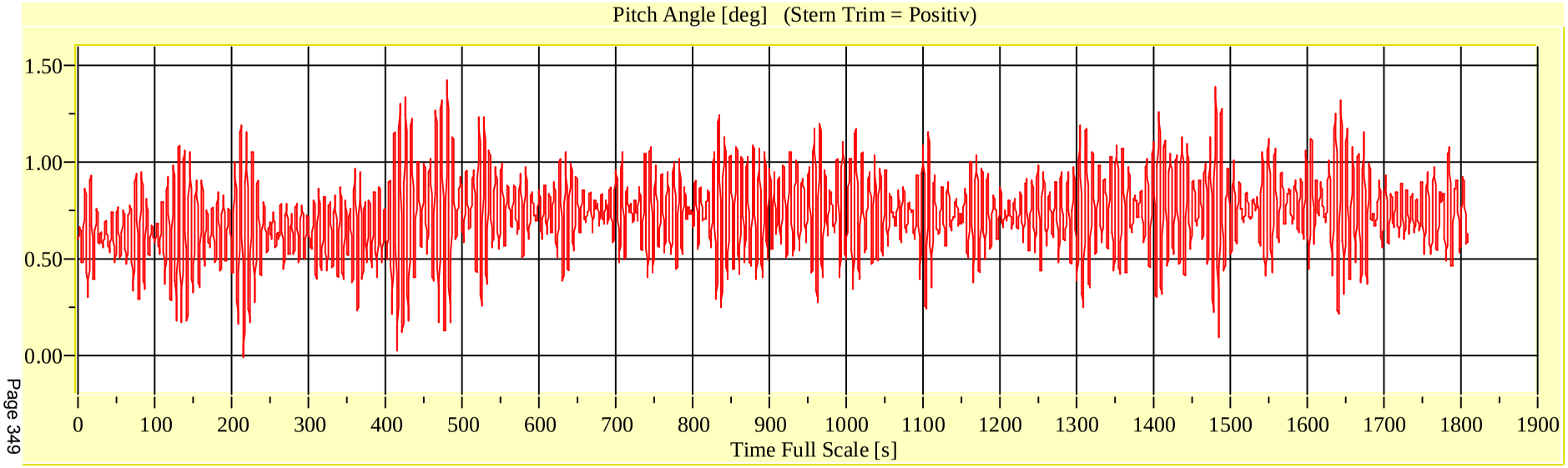


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-08	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

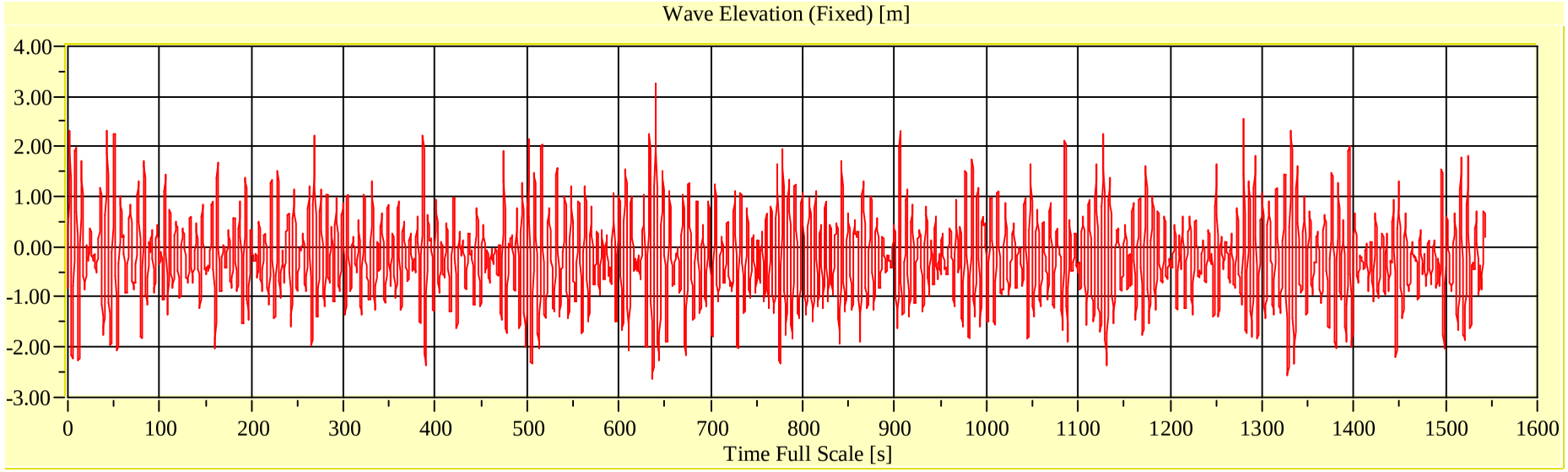


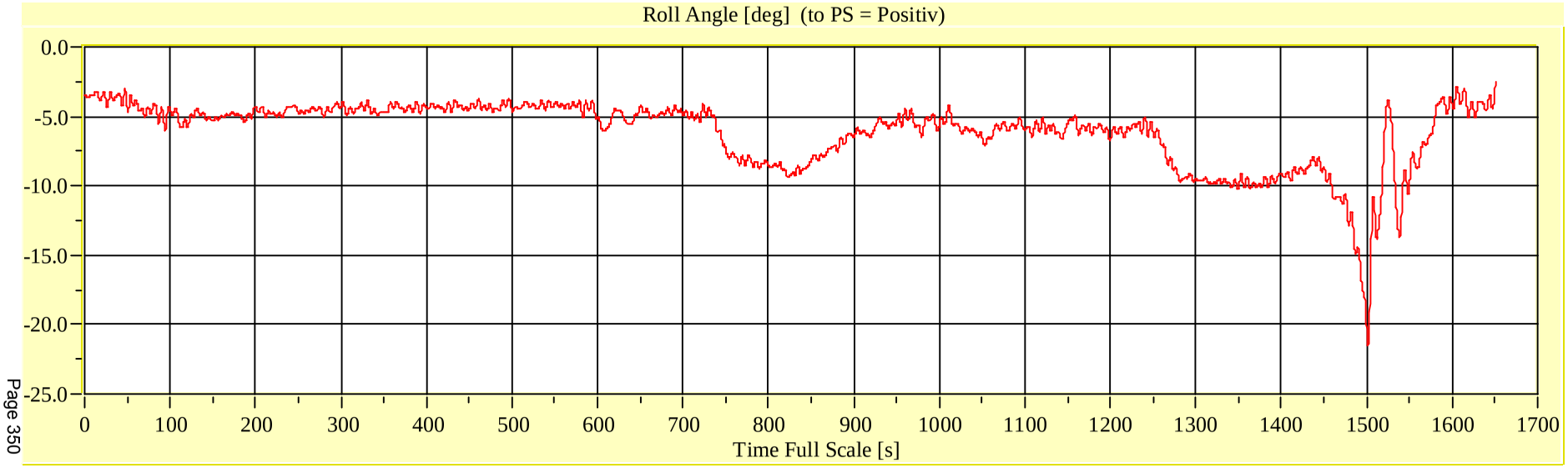


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-09	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

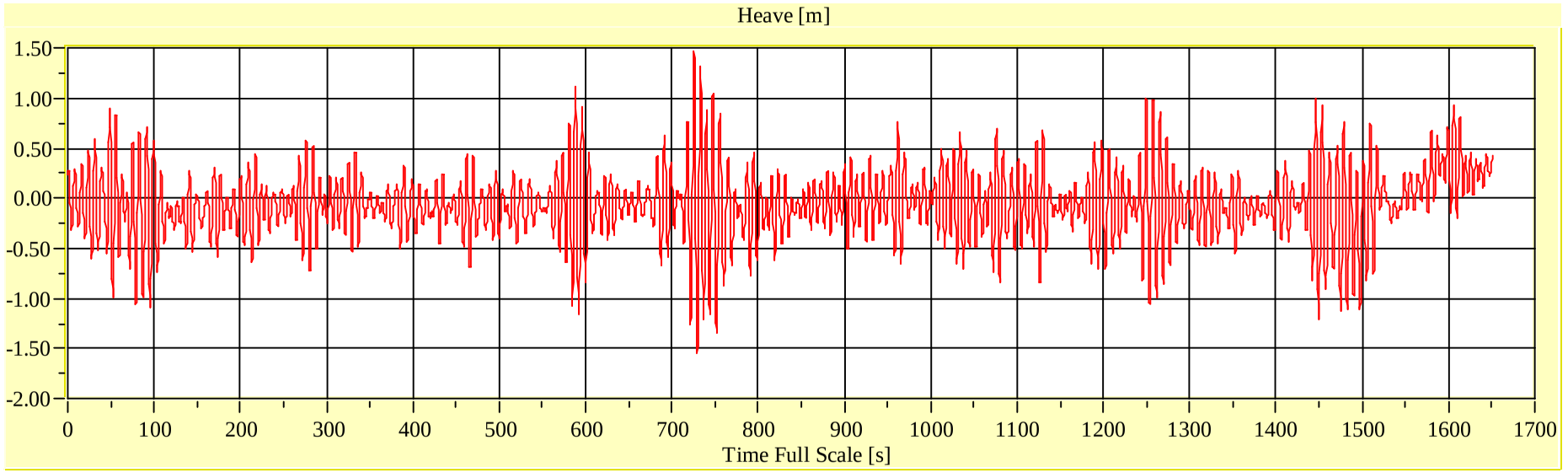


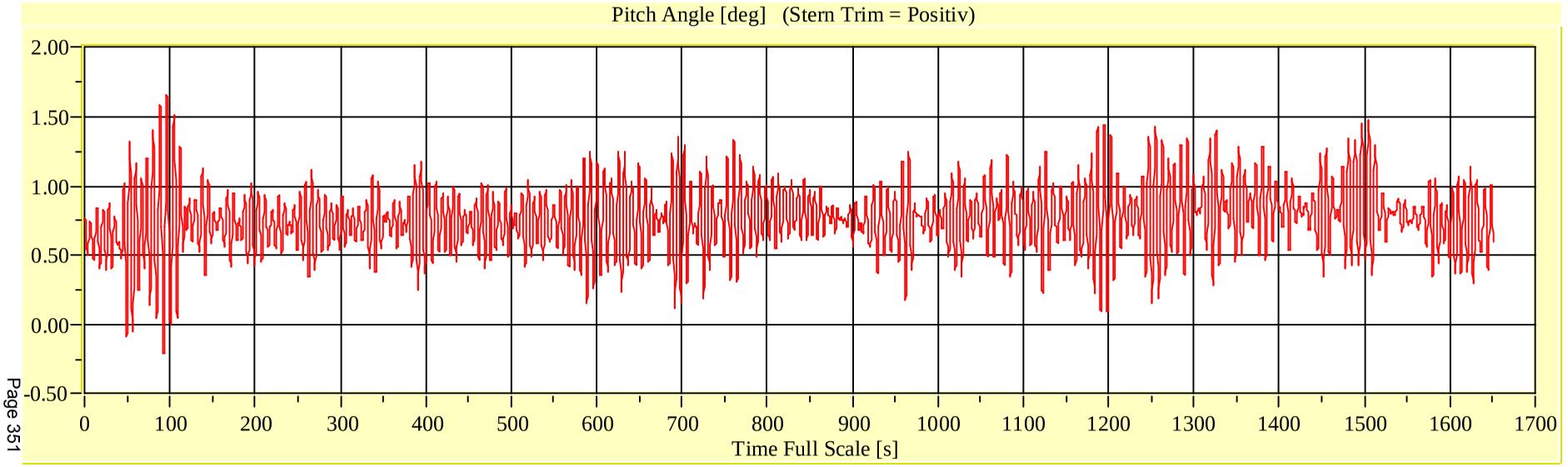


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-09	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

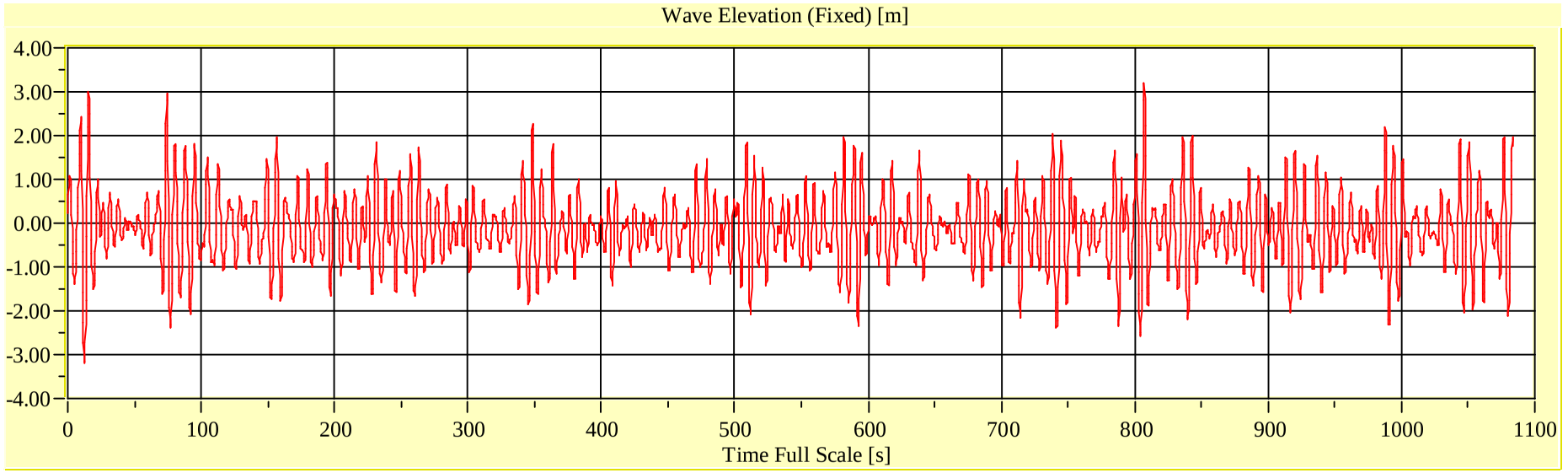


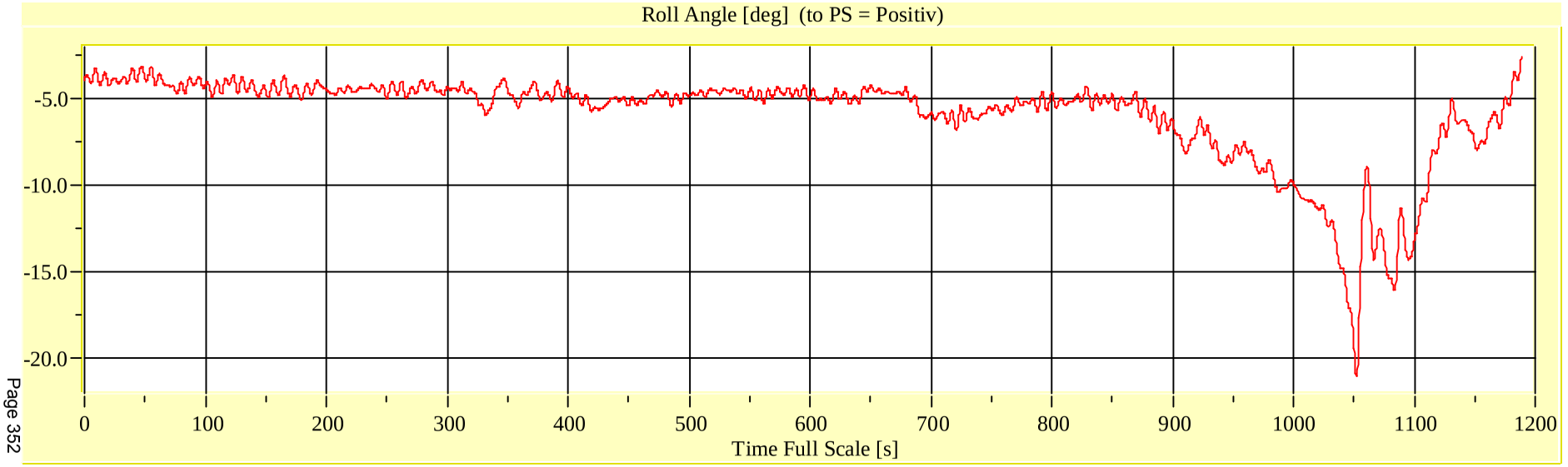


Date: 11.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-10	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

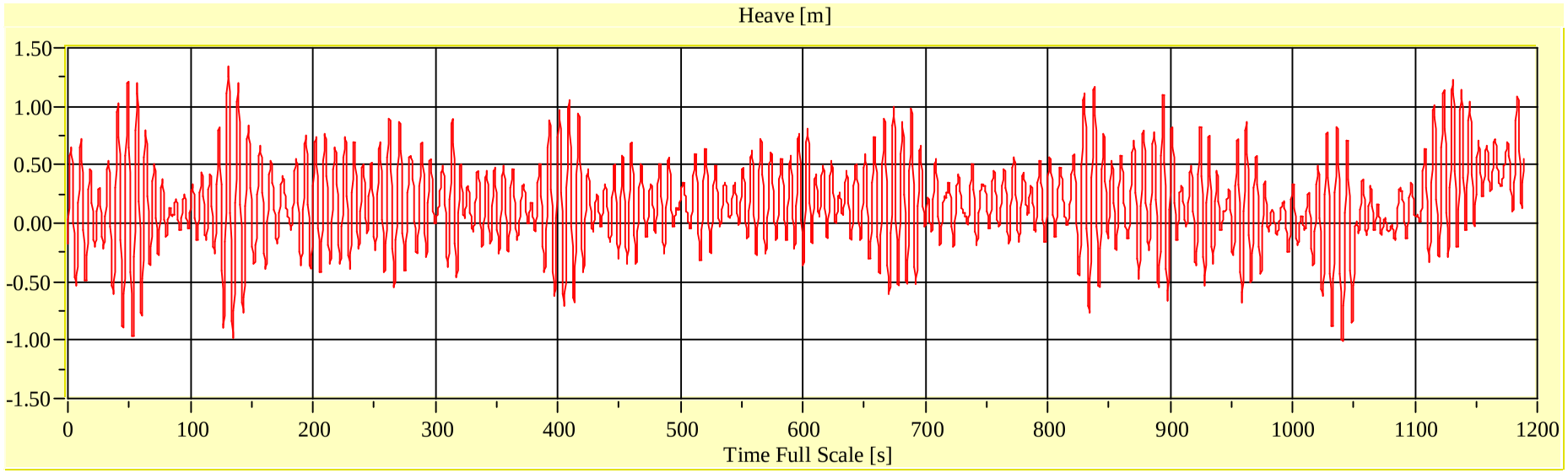


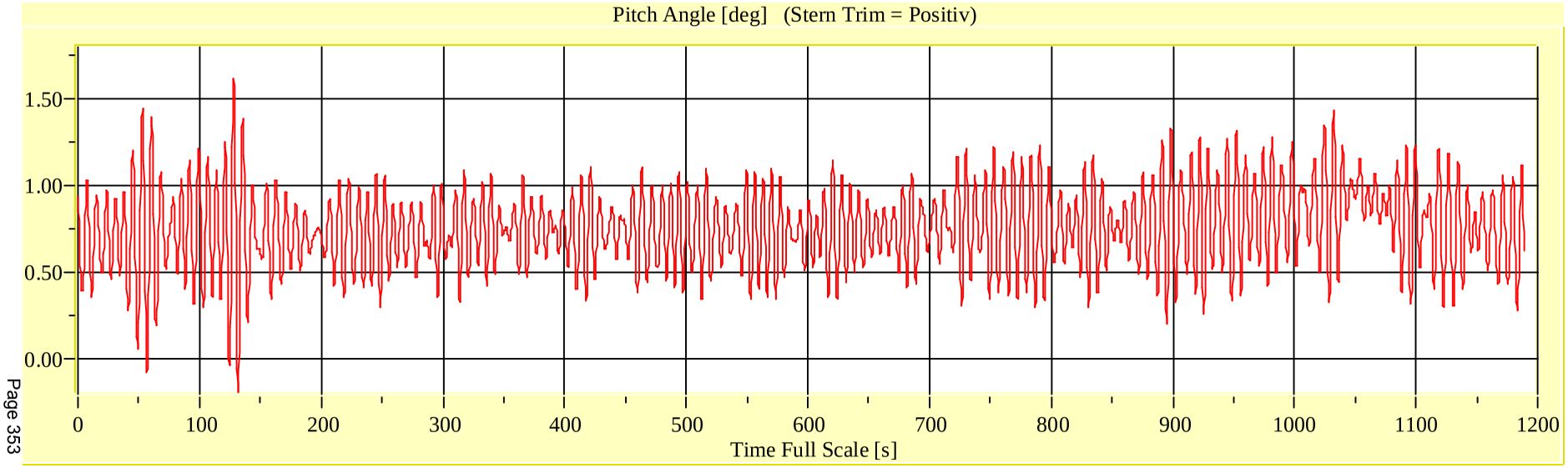


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29713-10	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

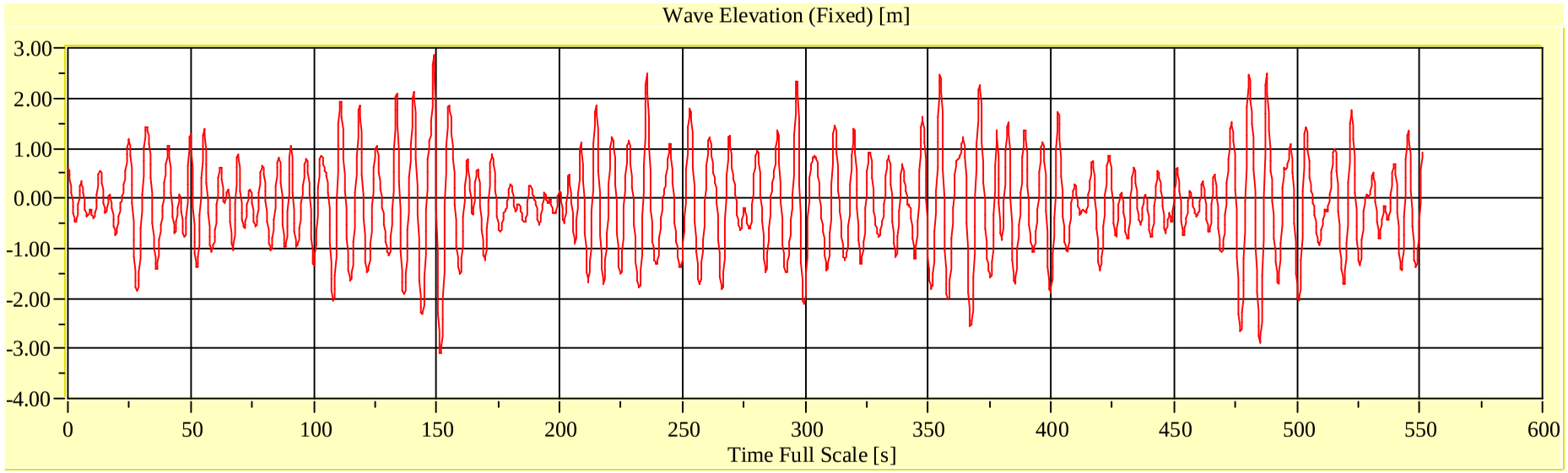


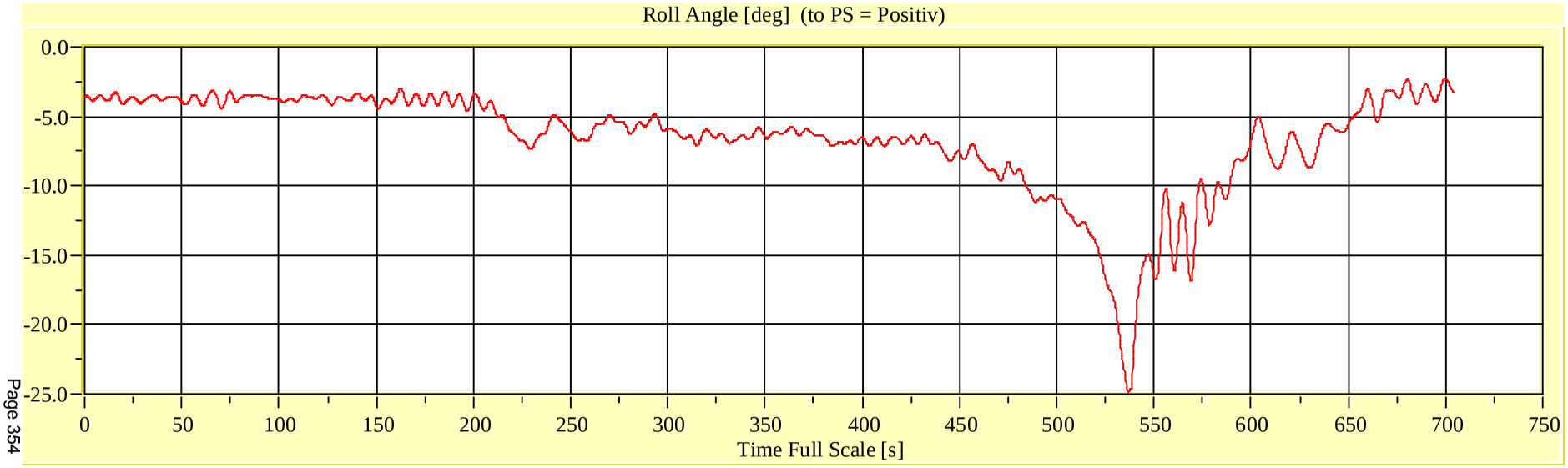


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-01	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

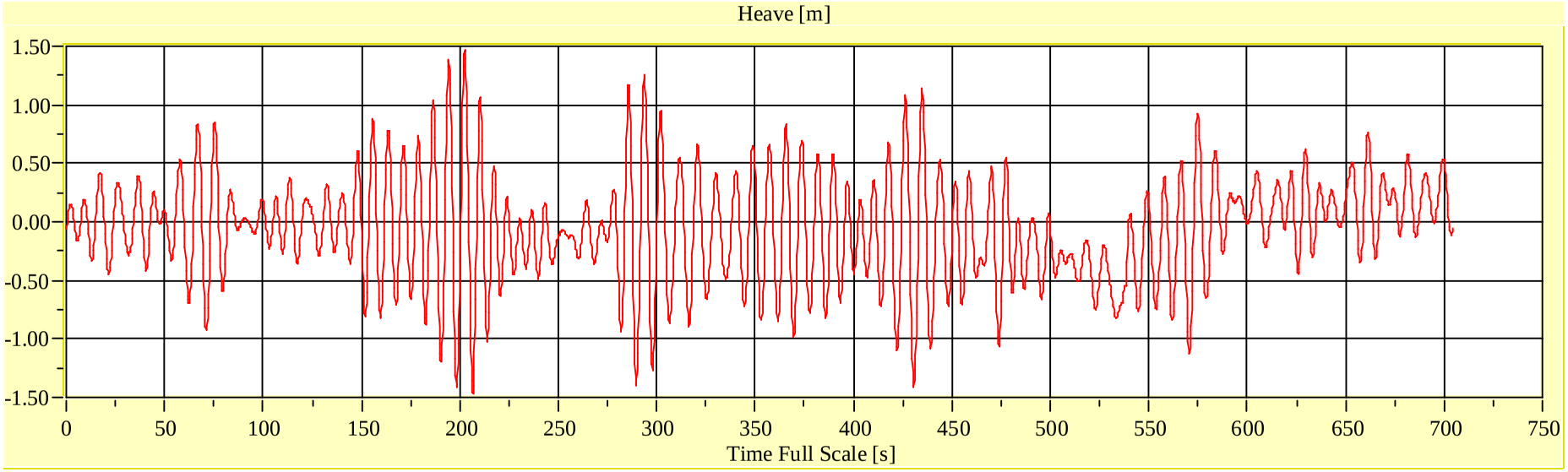


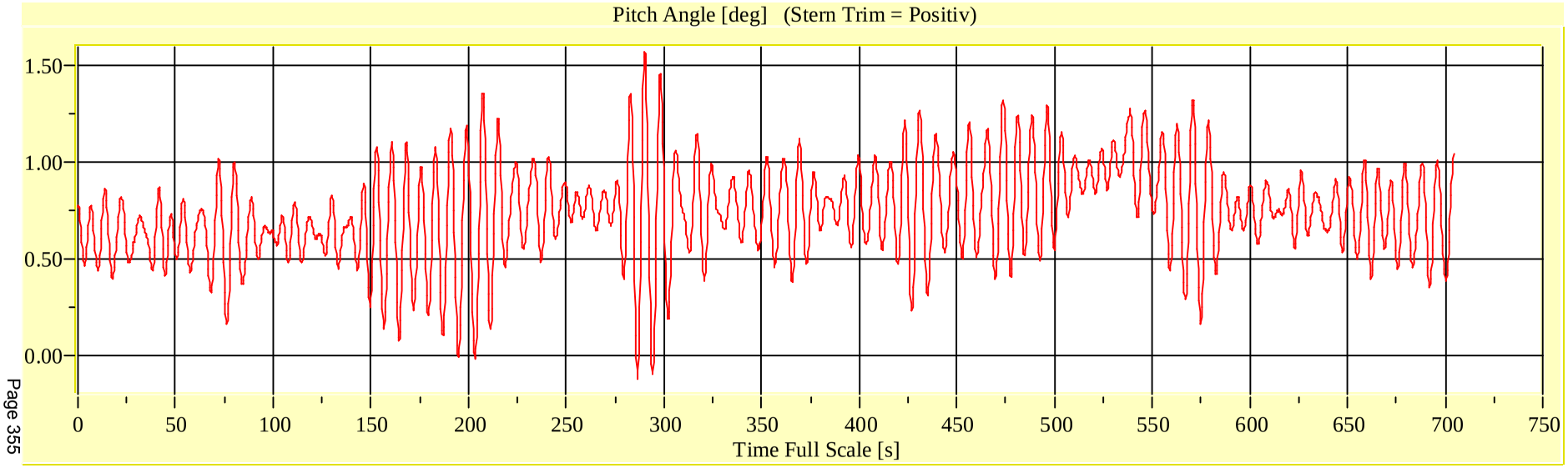


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-01	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

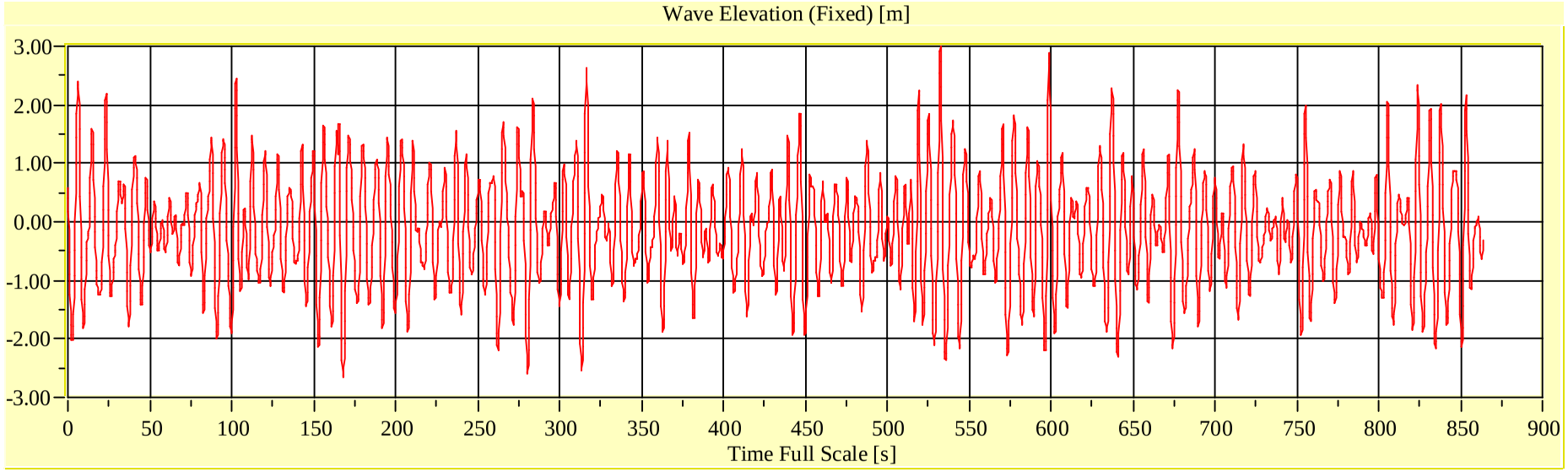


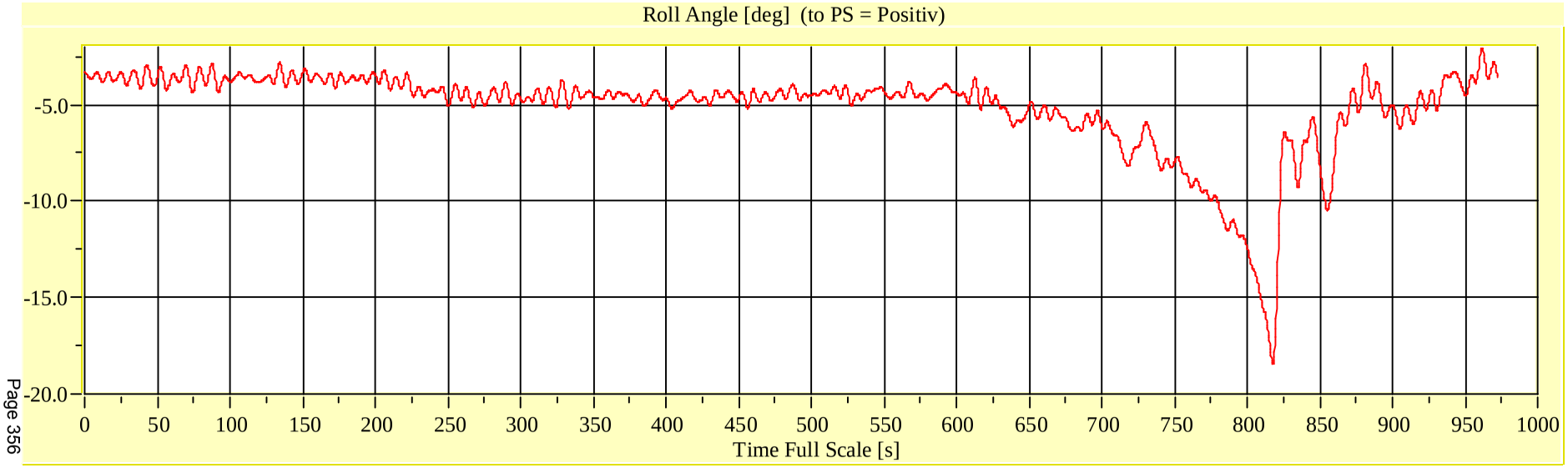


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-02	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



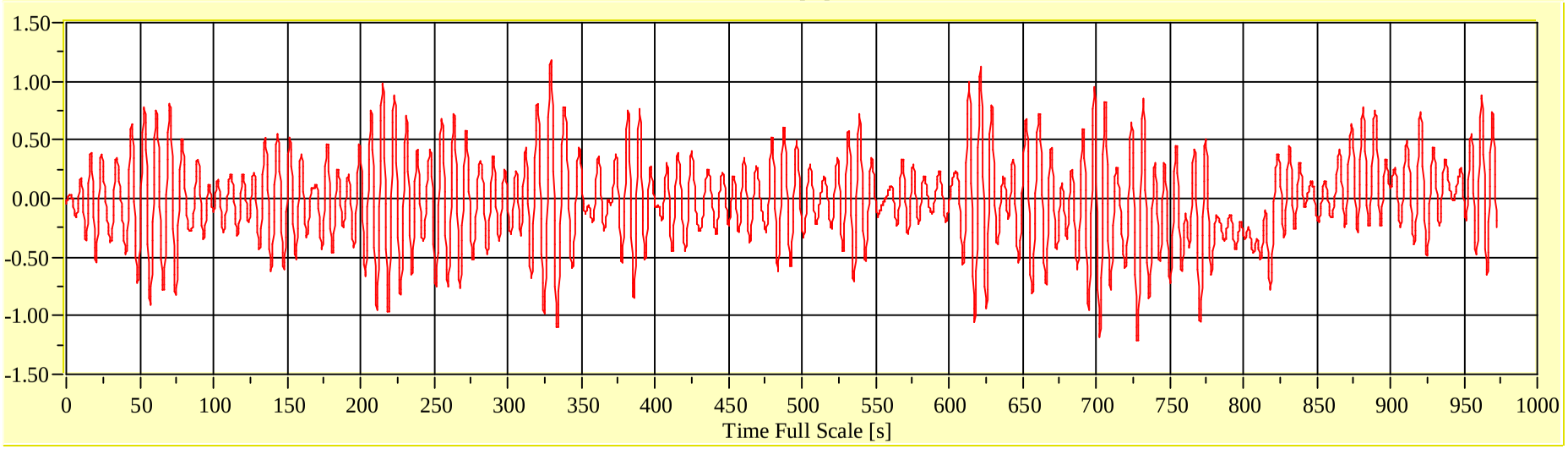


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

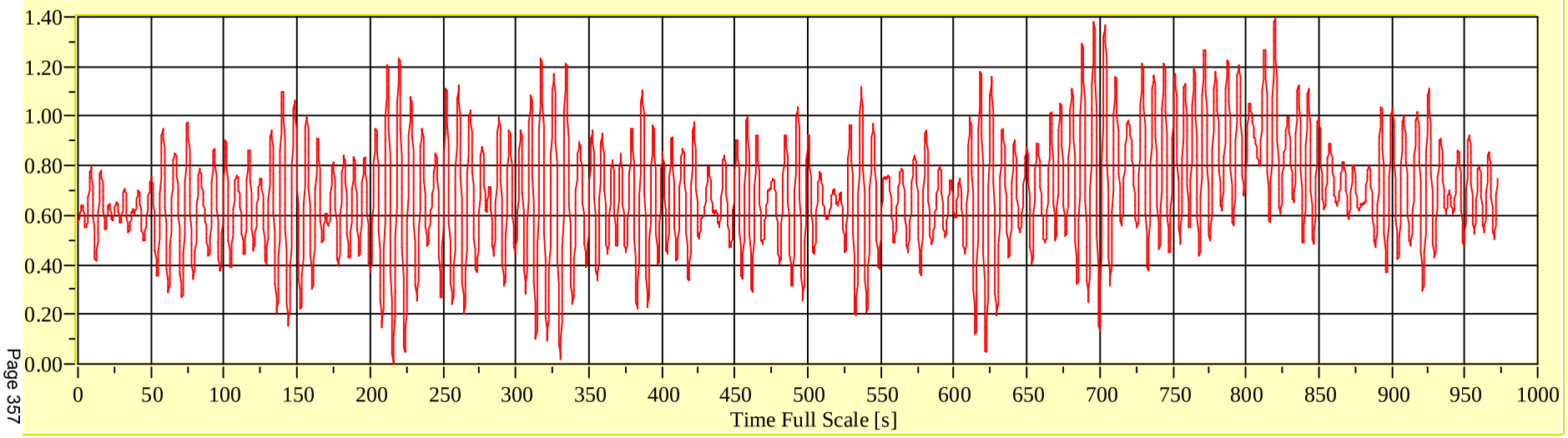
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-02	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



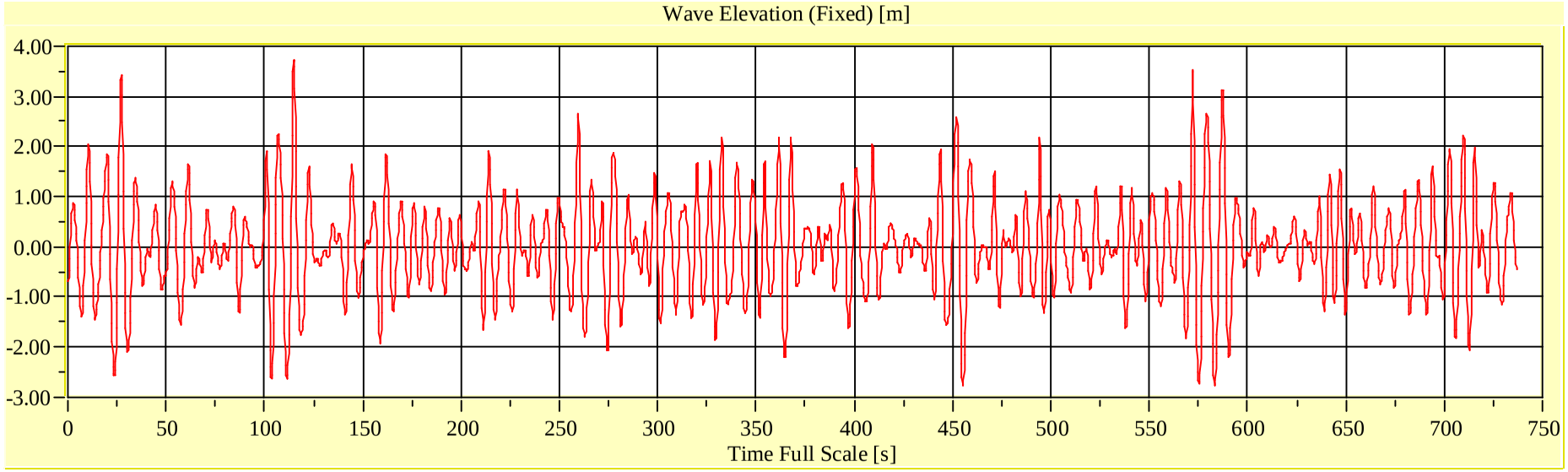
Pitch Angle [deg] (Stern Trim = Positiv)

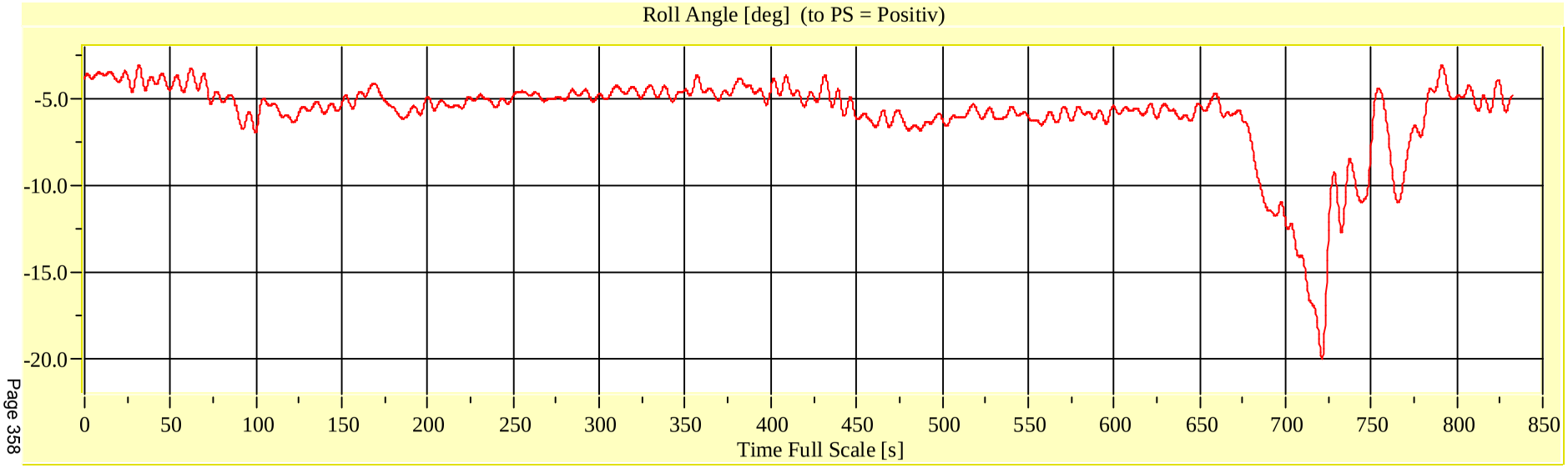


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-03	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



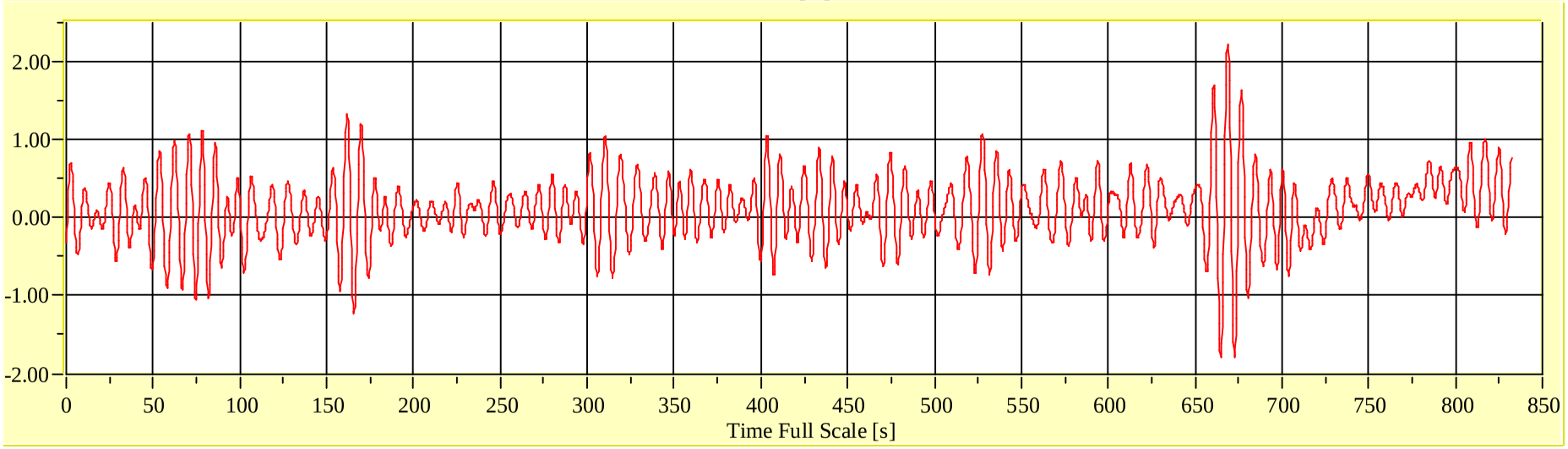


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

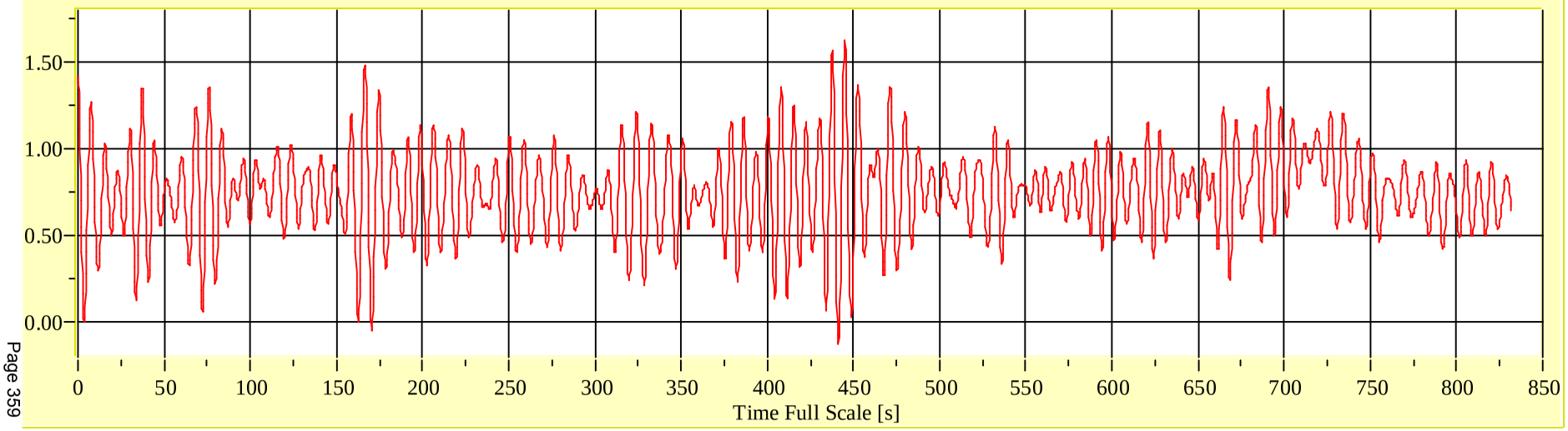
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-03	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



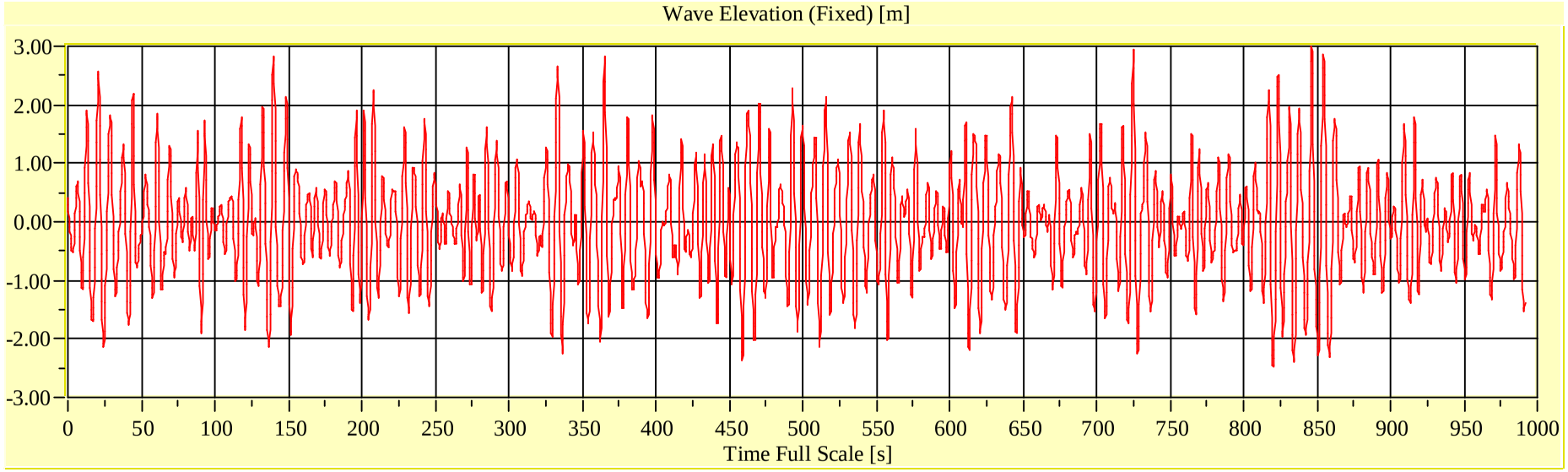
Pitch Angle [deg] (Stern Trim = Positiv)

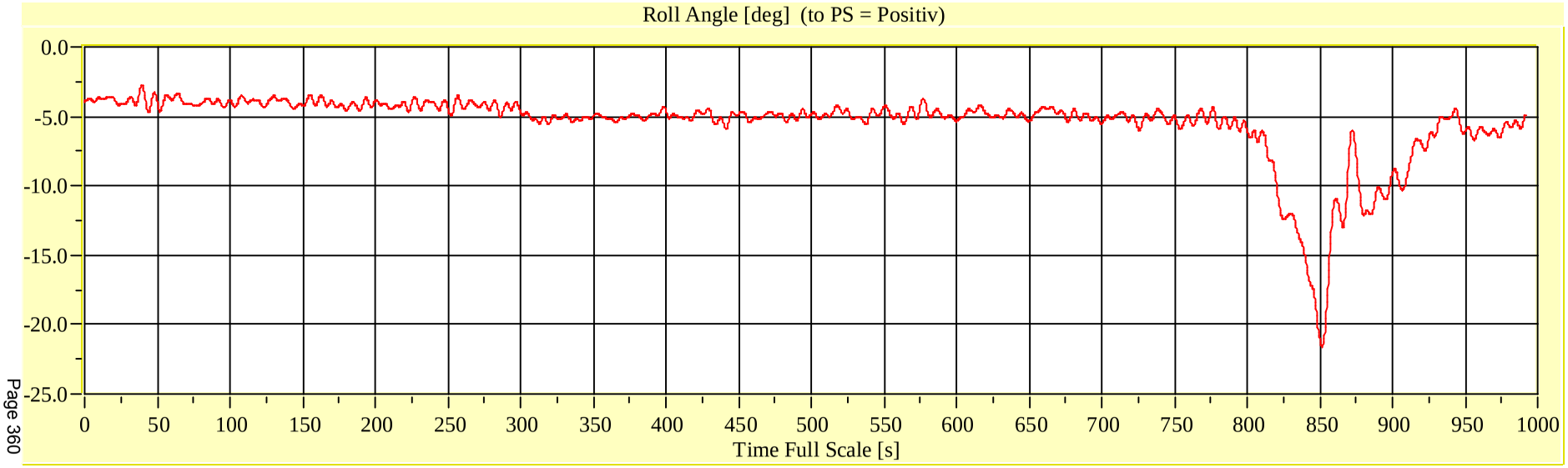


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-04	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

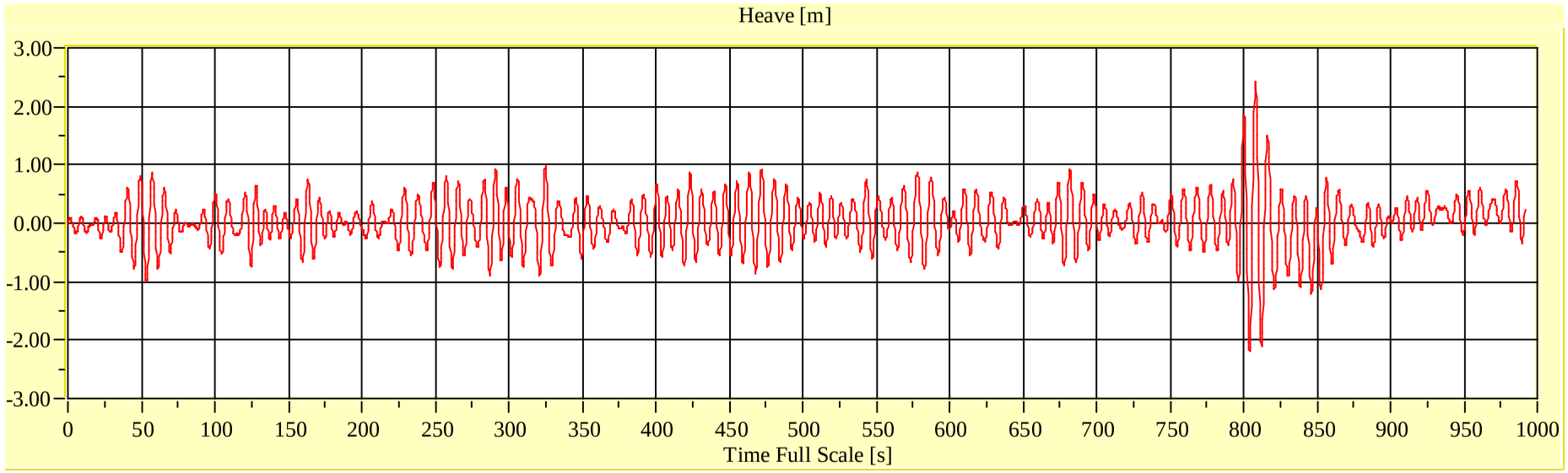


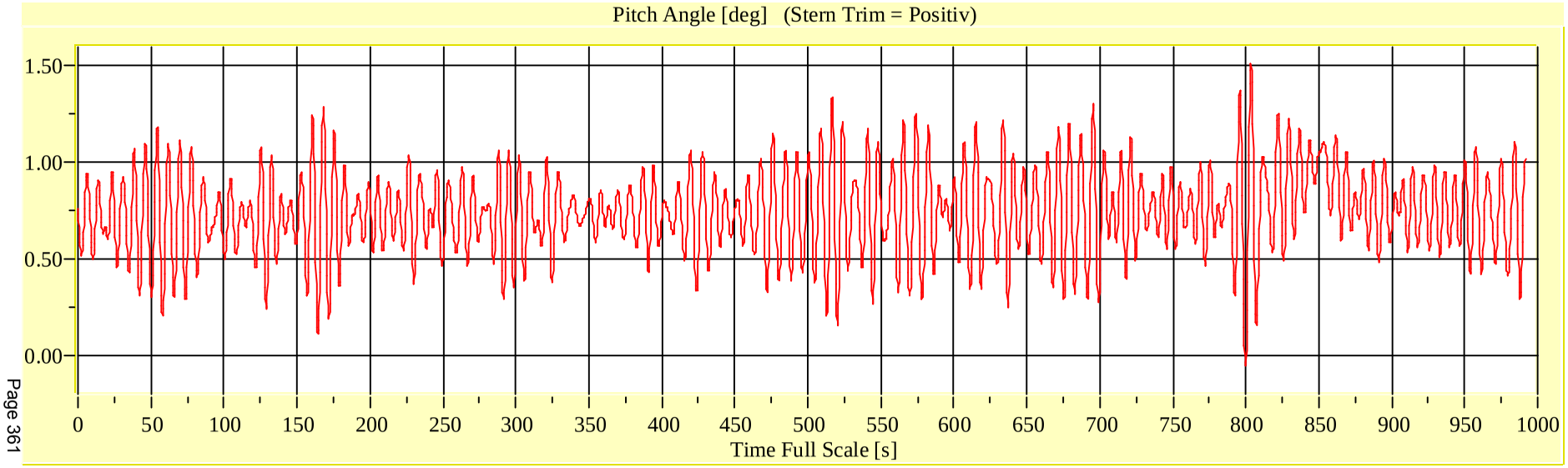


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-04	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

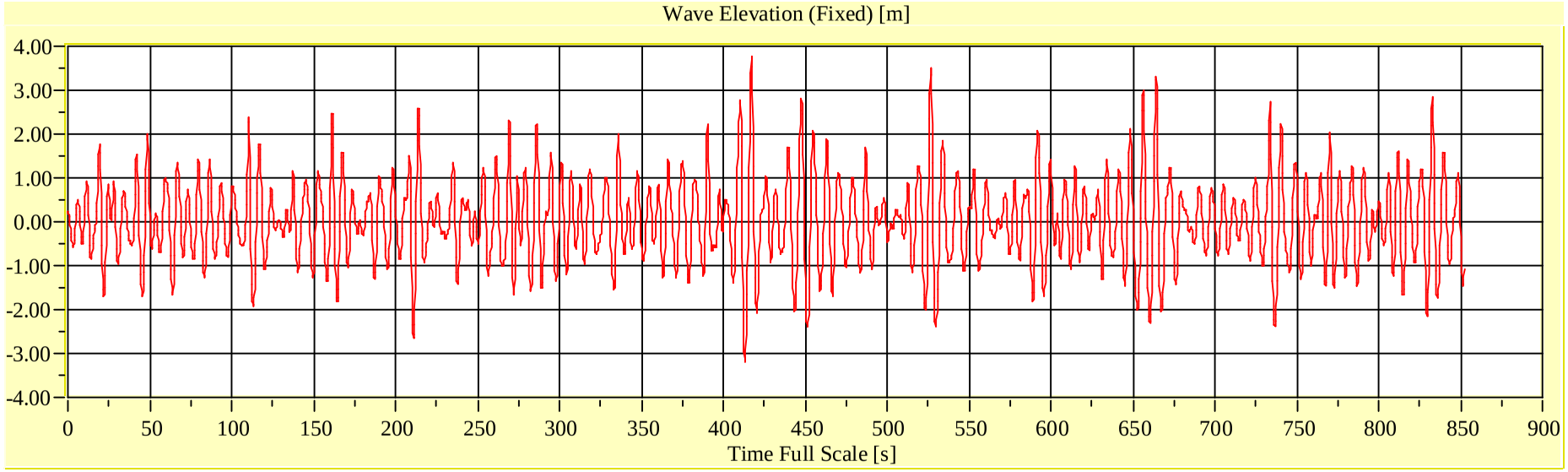


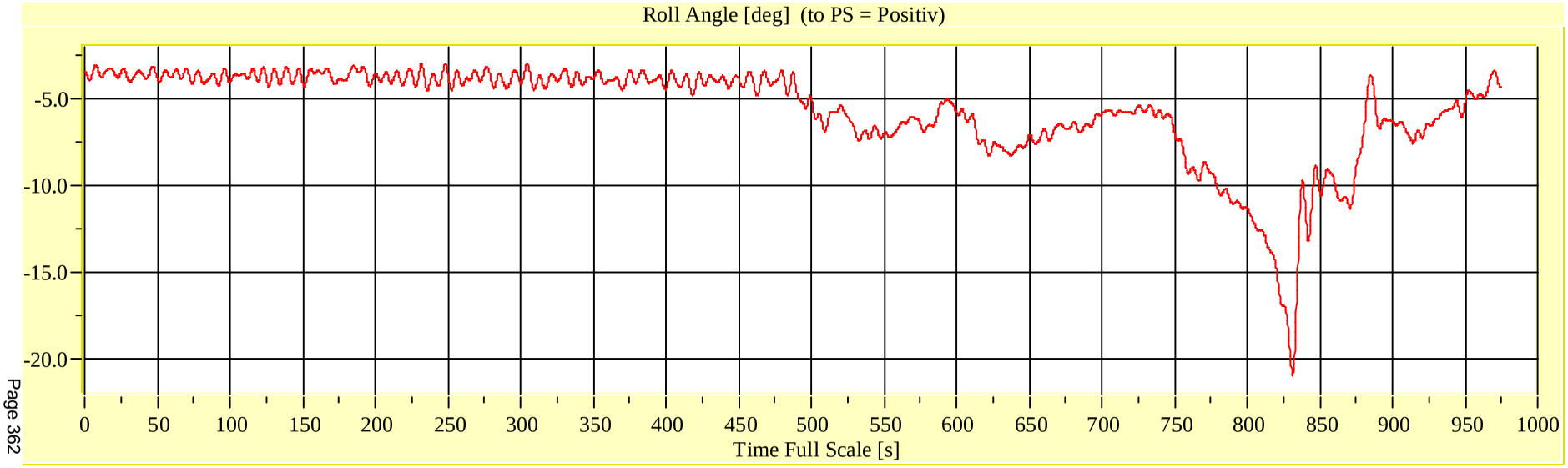


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-05	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

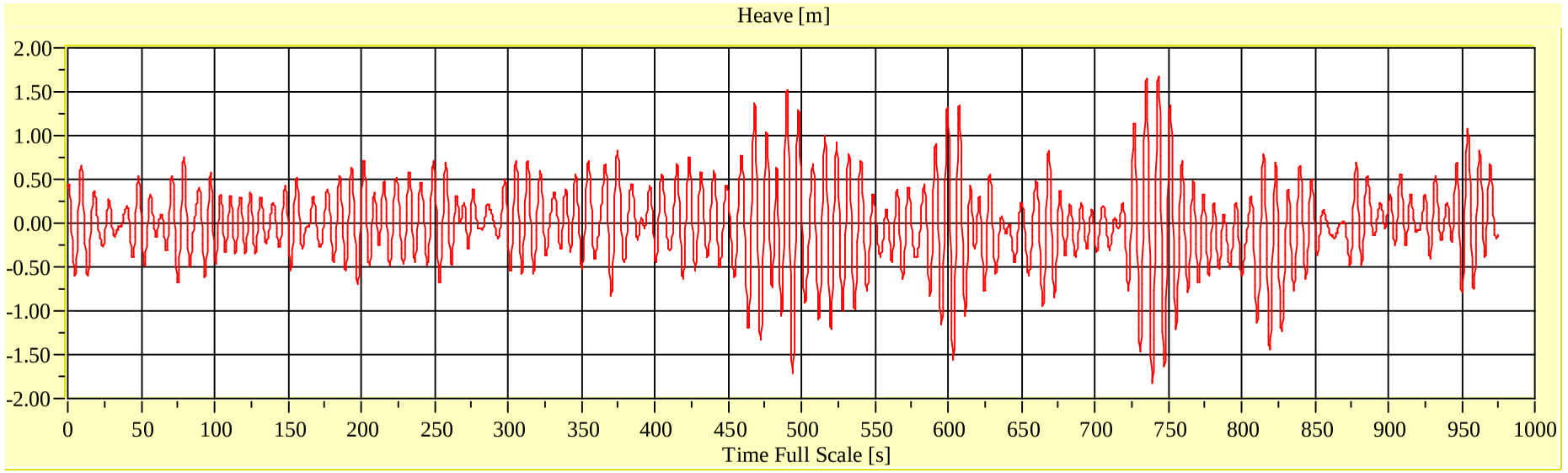


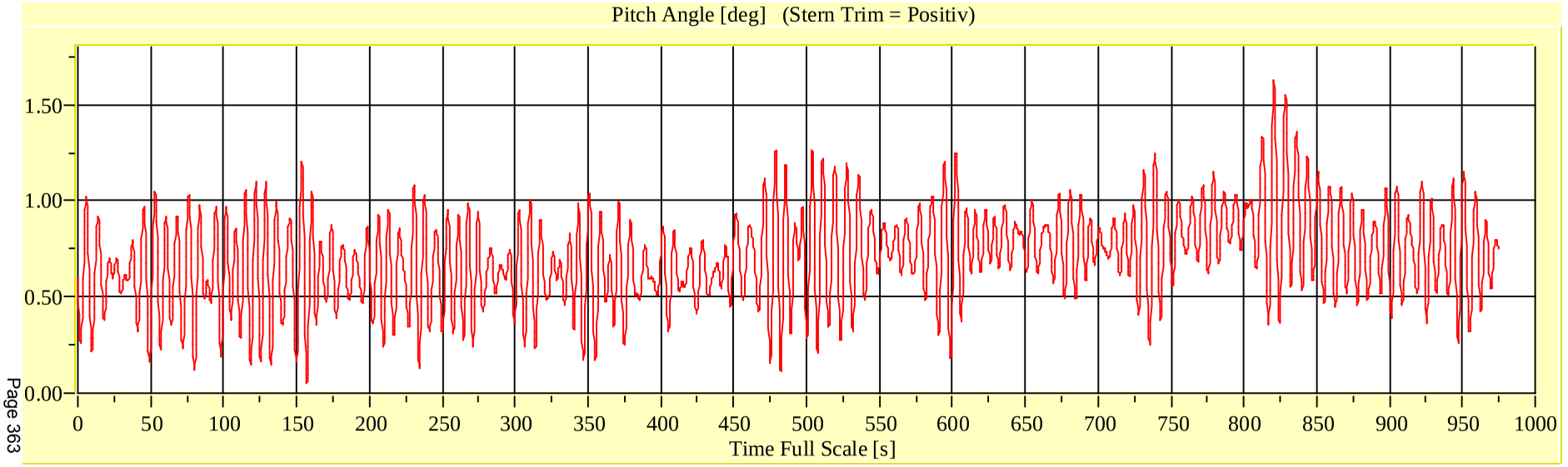


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-05	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

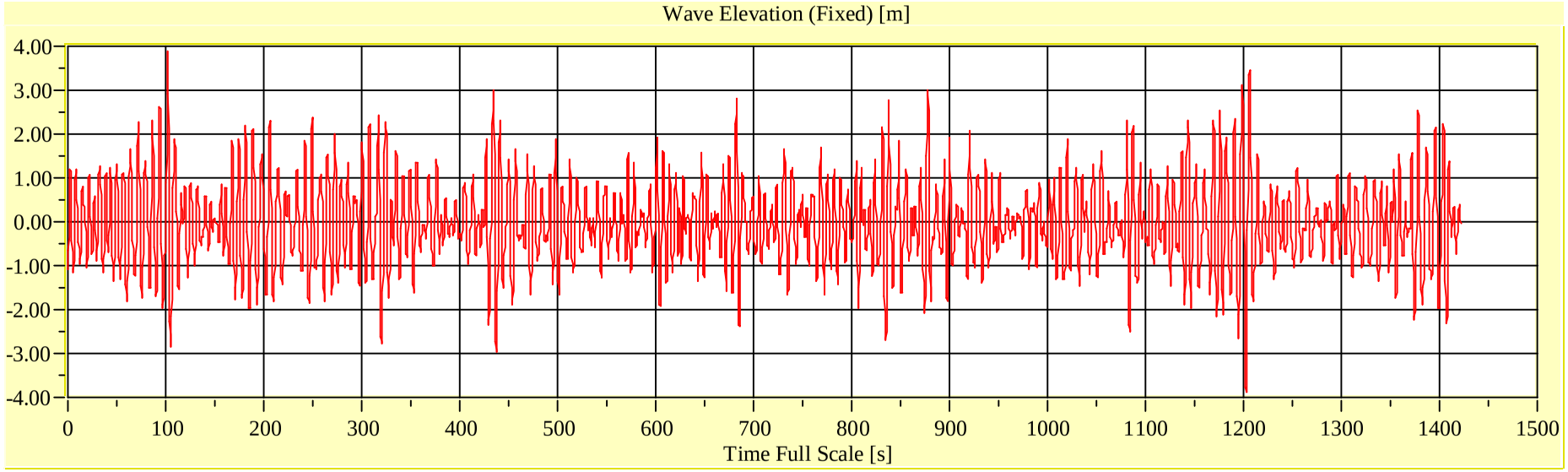


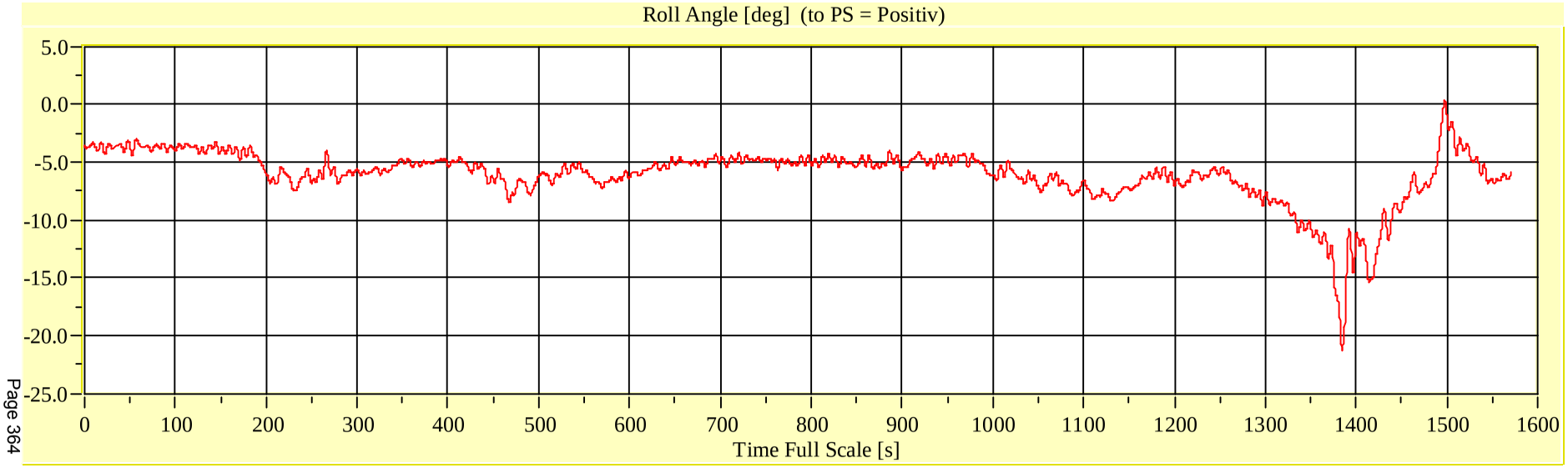


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-06	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

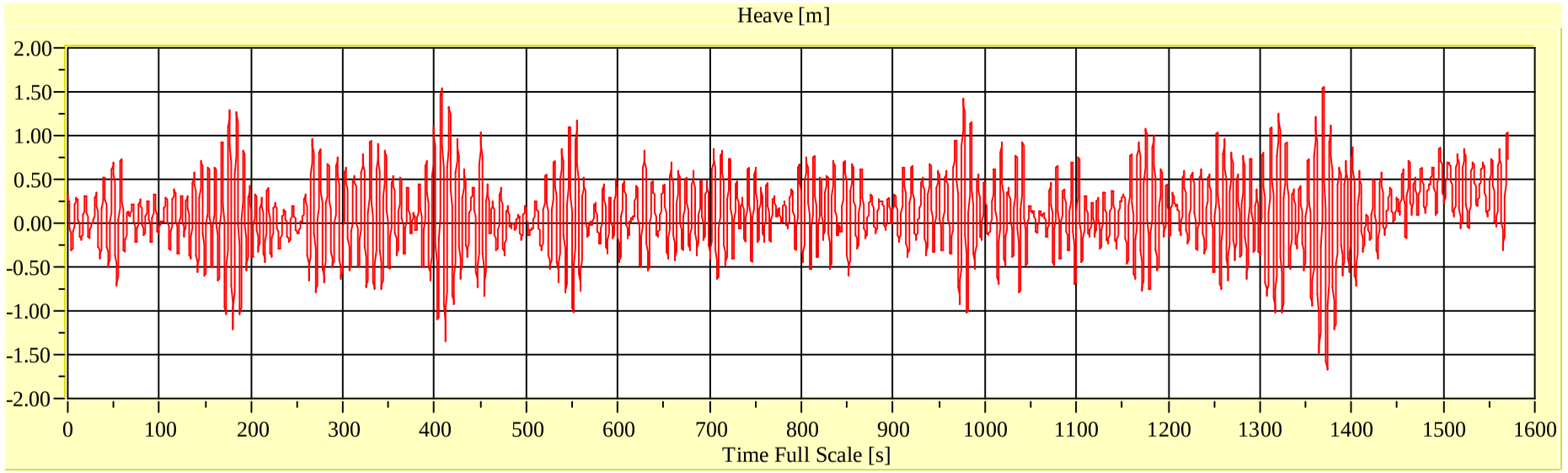


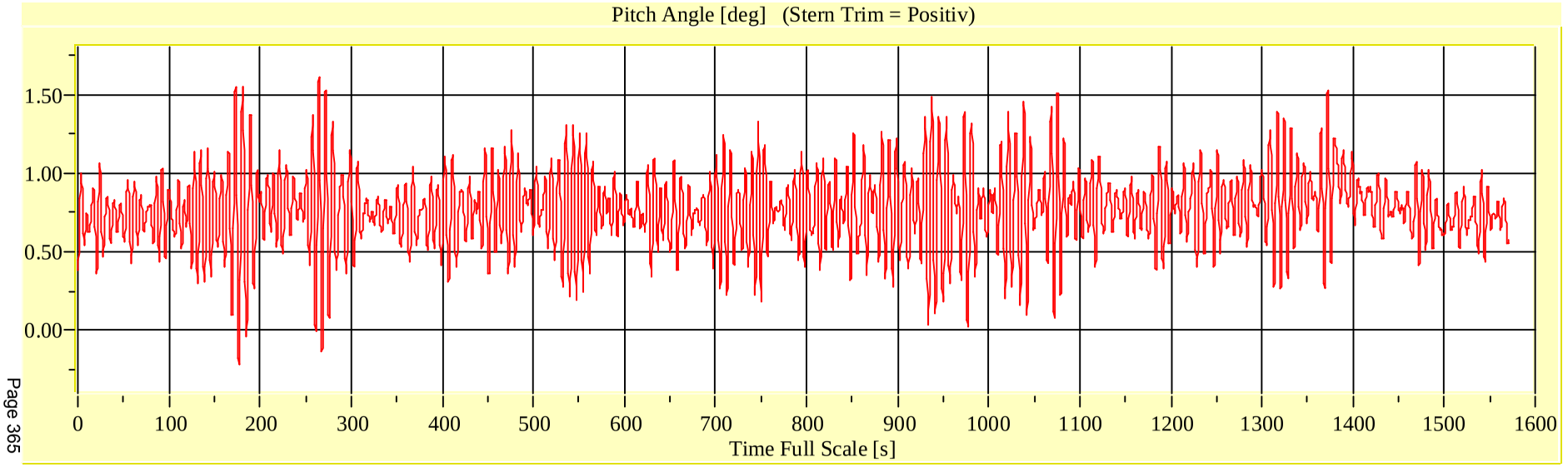


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-06	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

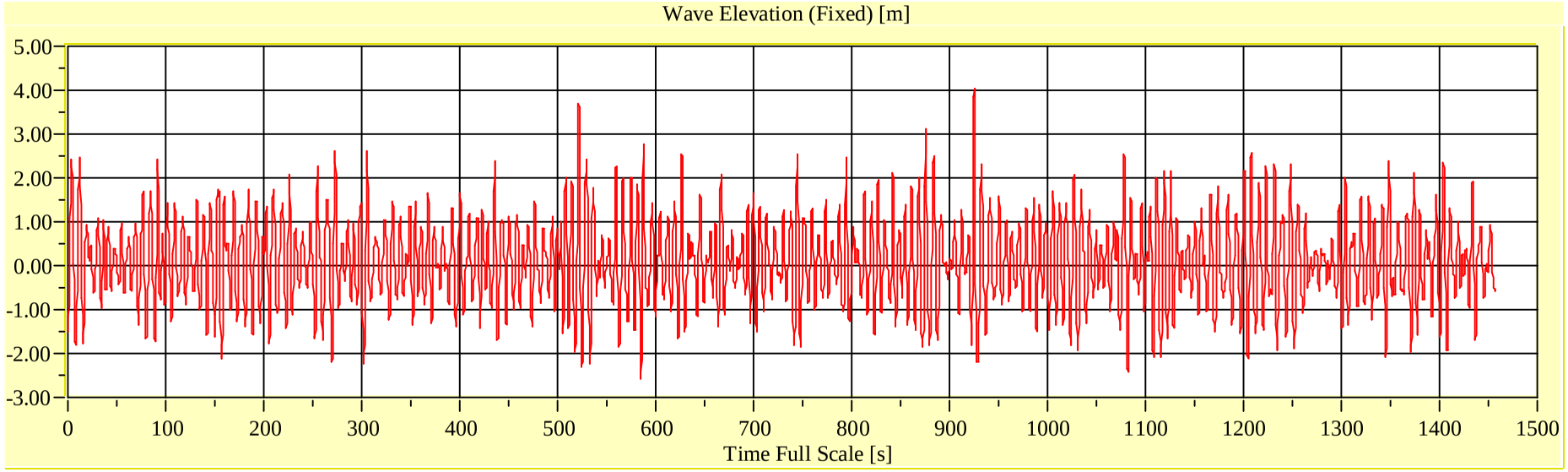


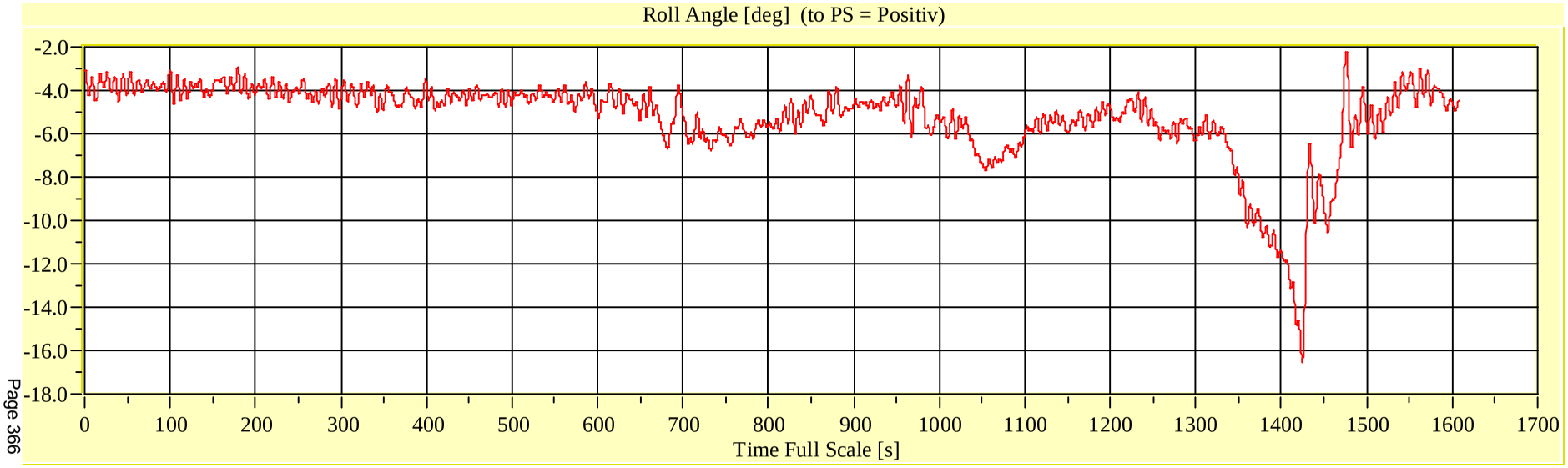


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-07	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

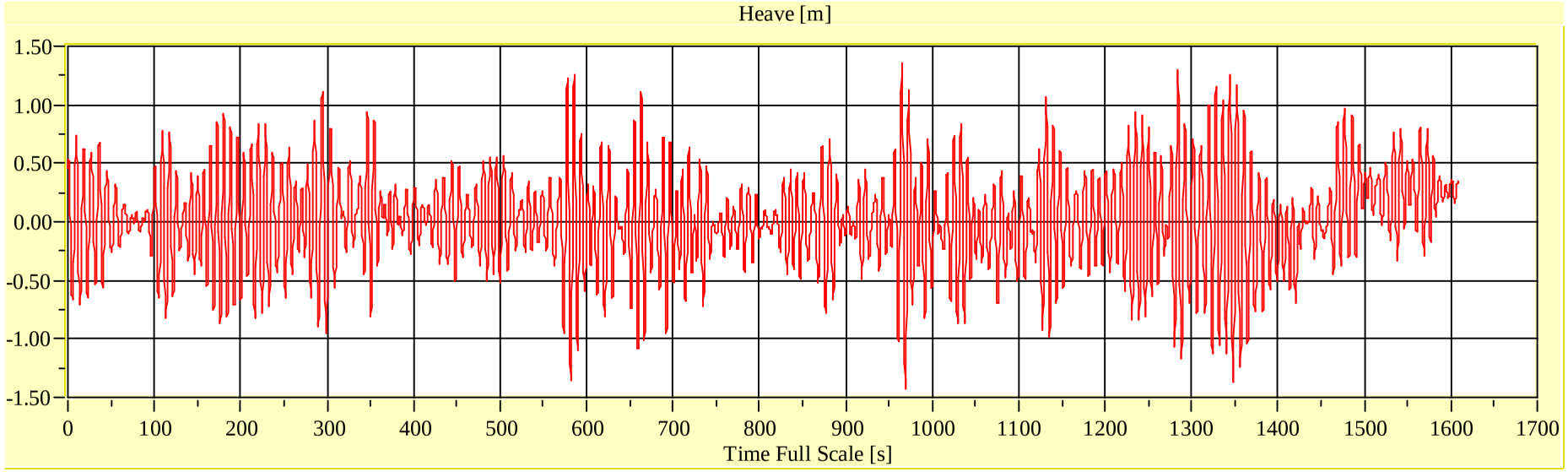


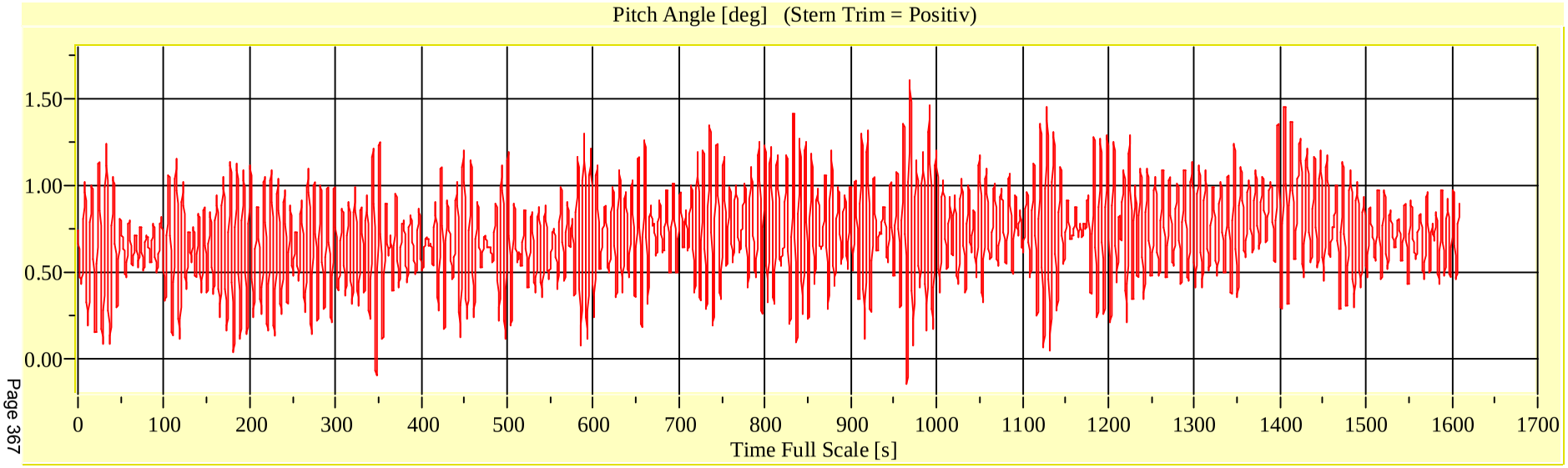


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-07	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

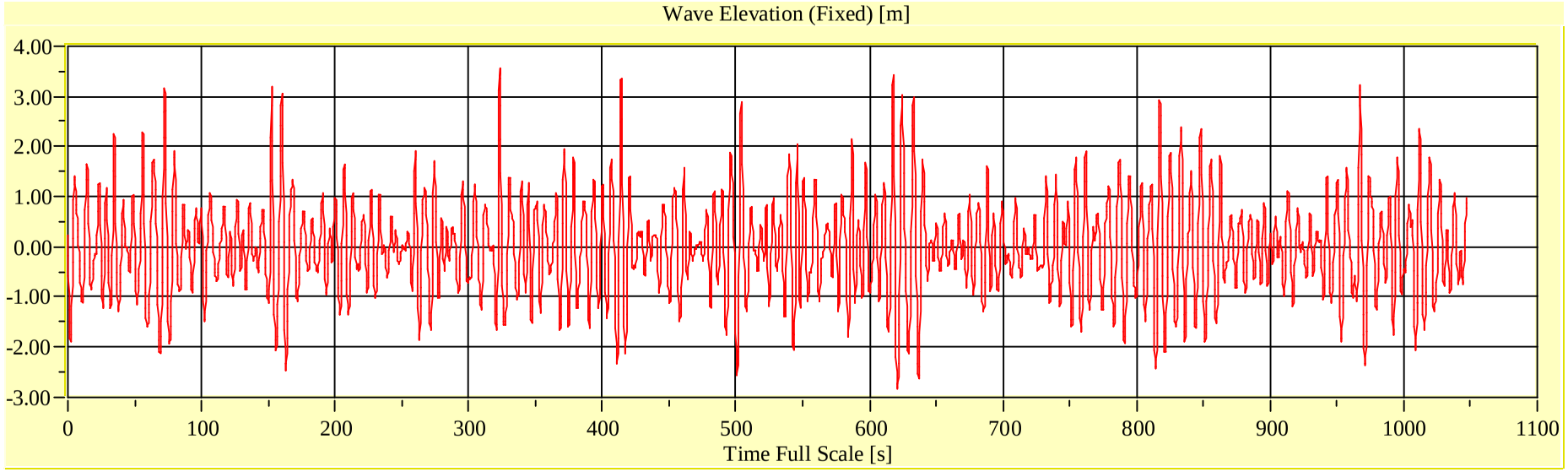


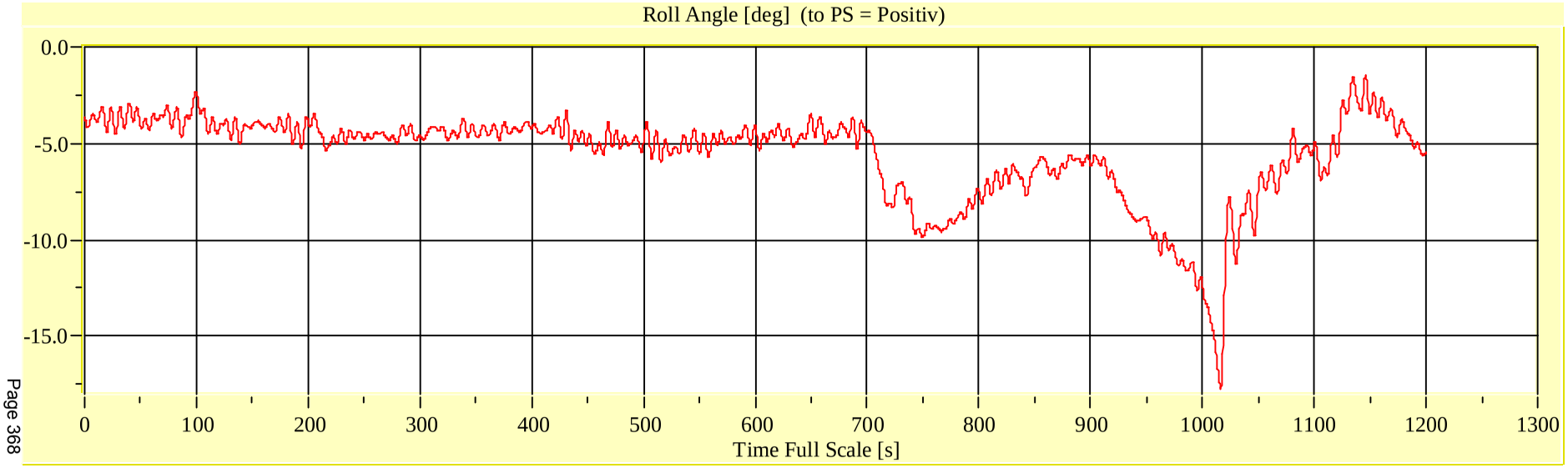


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-08	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

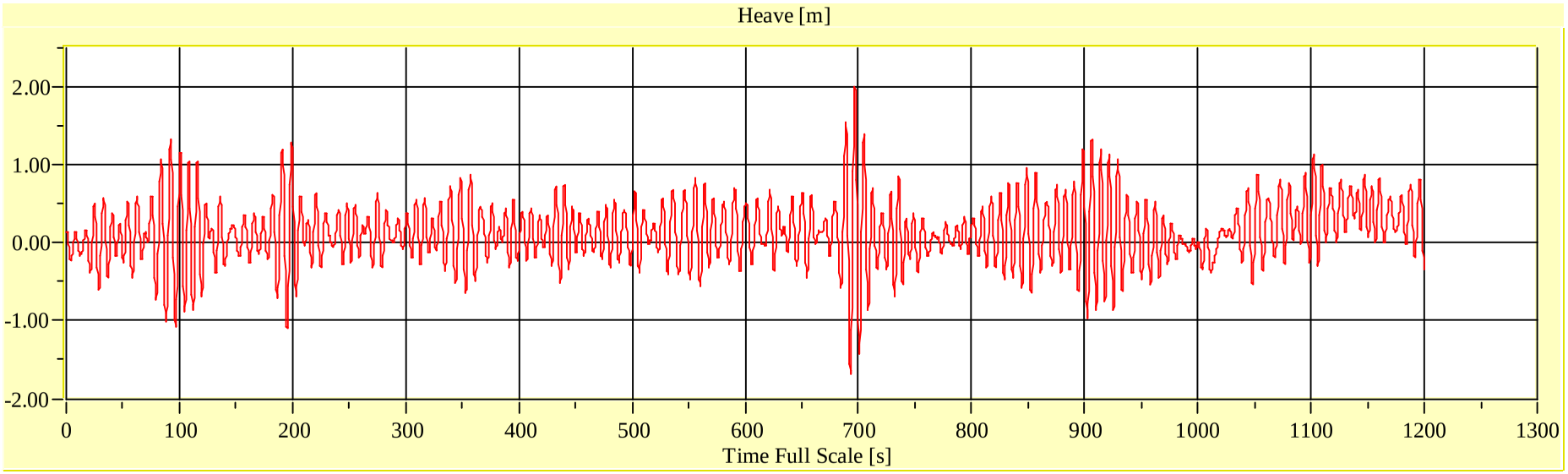


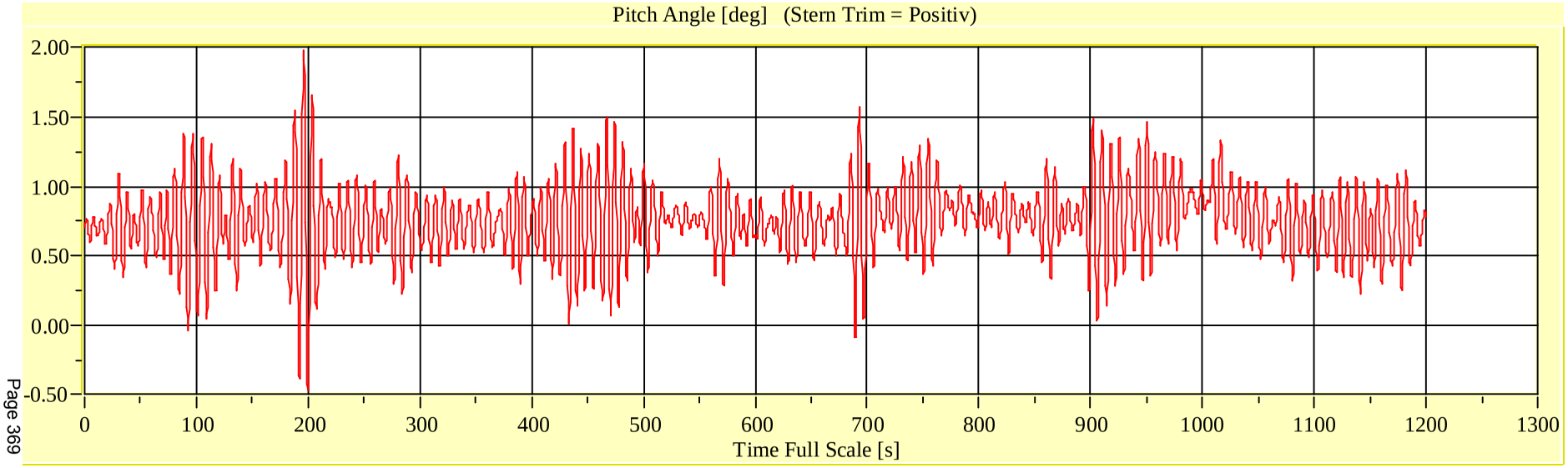


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-08	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

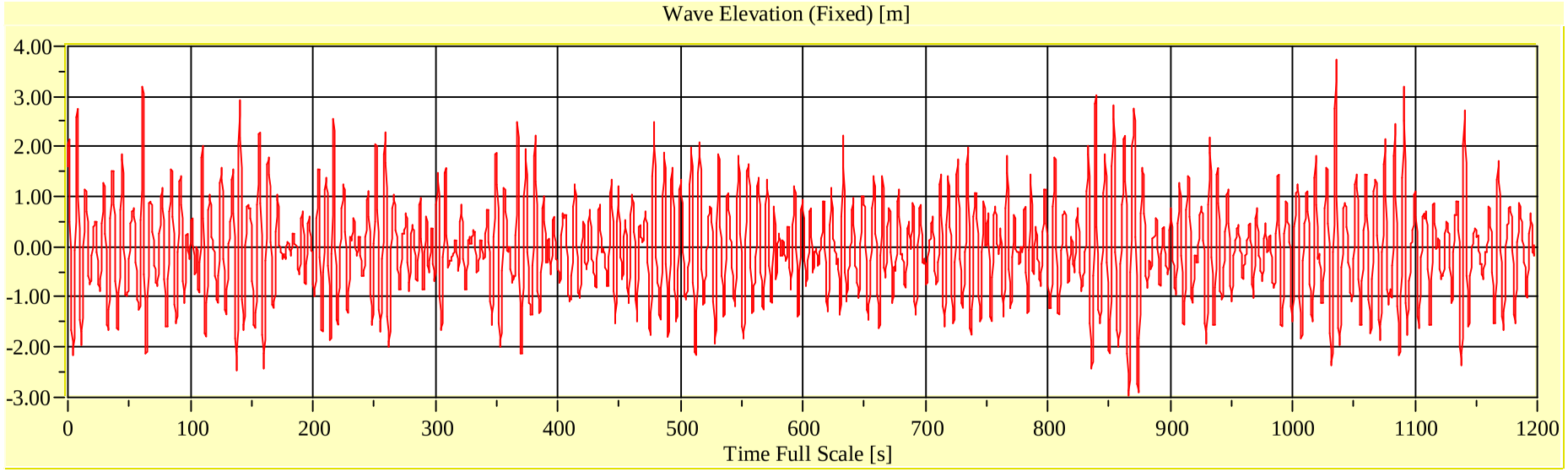


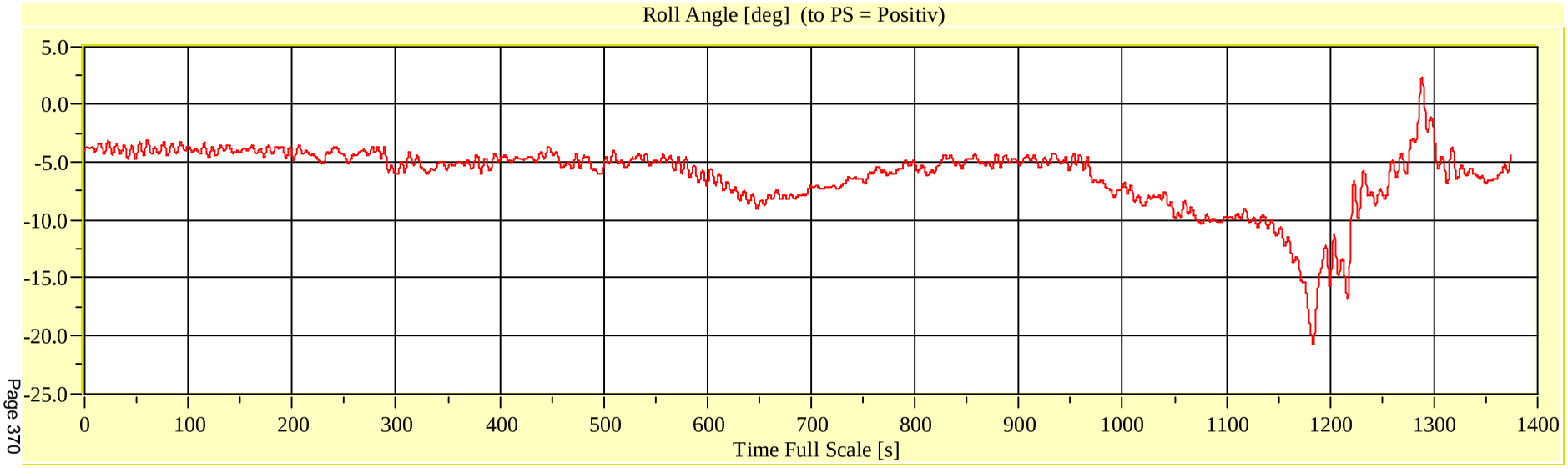


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-09	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

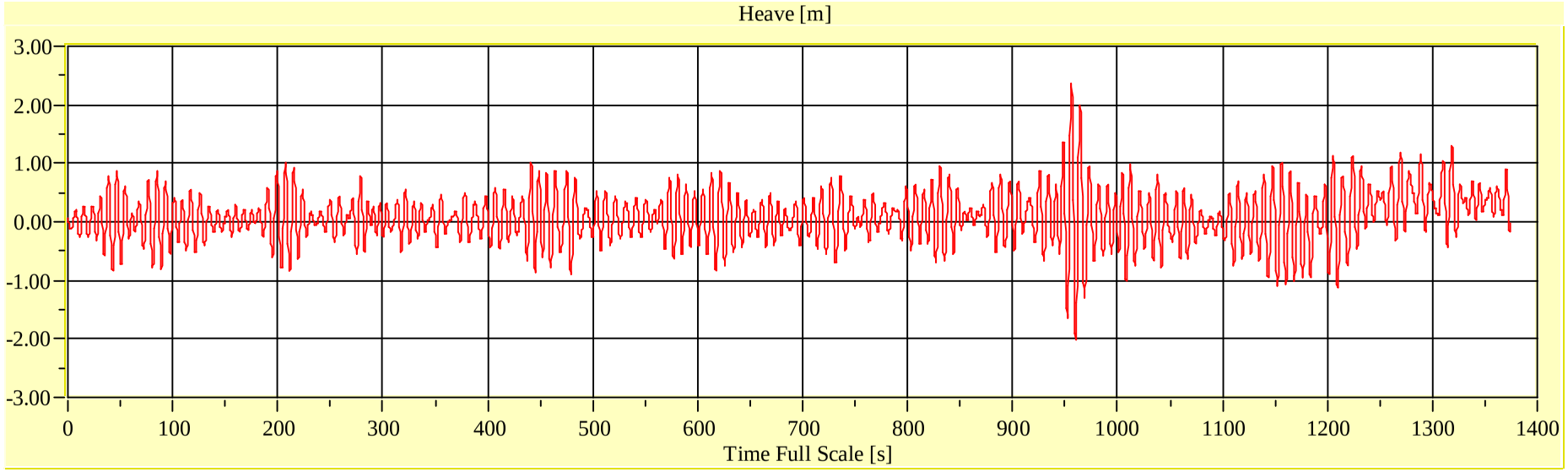


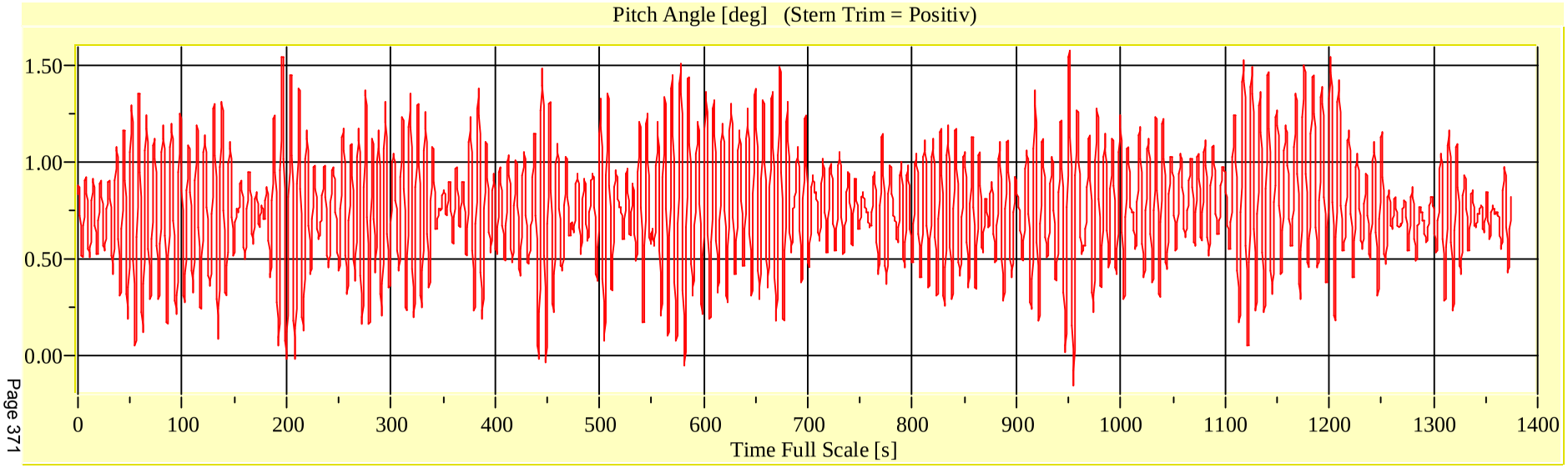


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-09	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

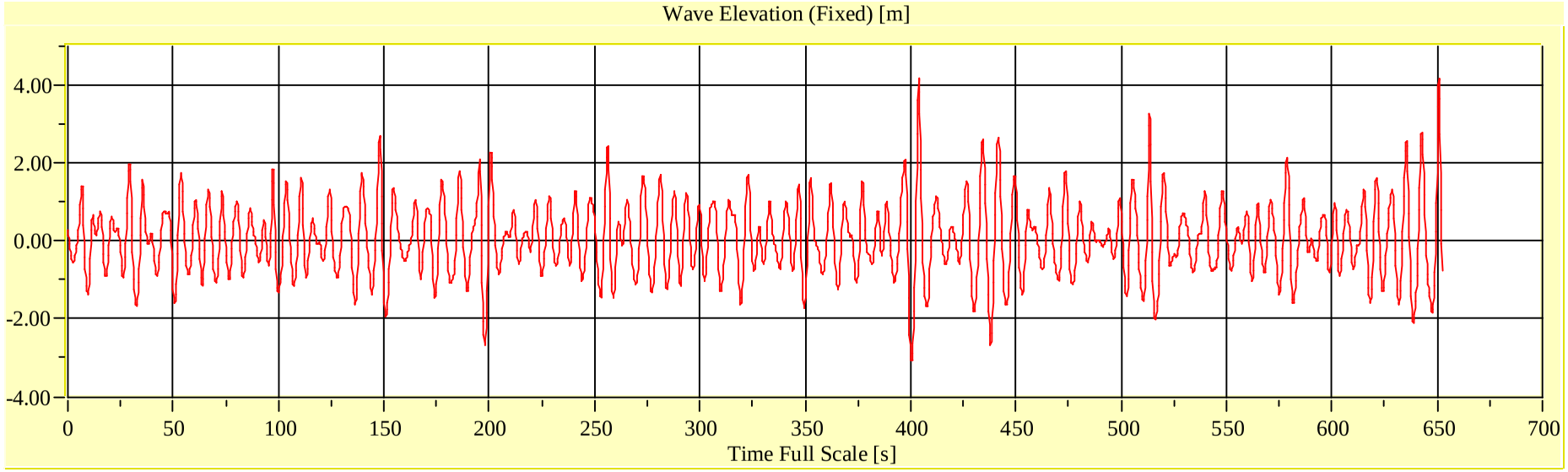


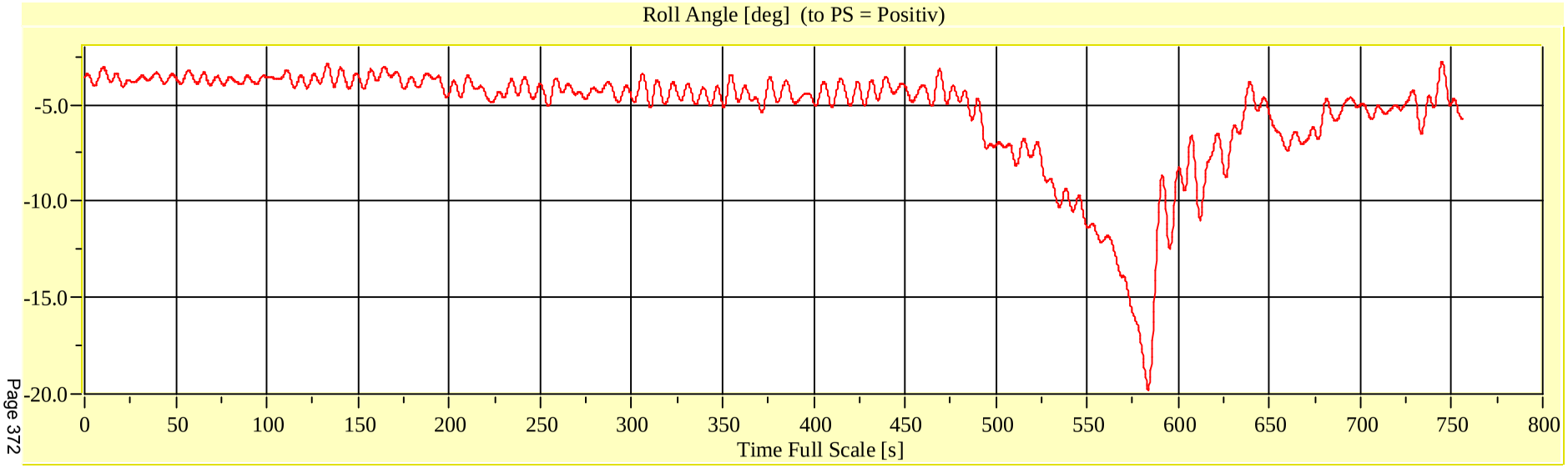


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-10	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



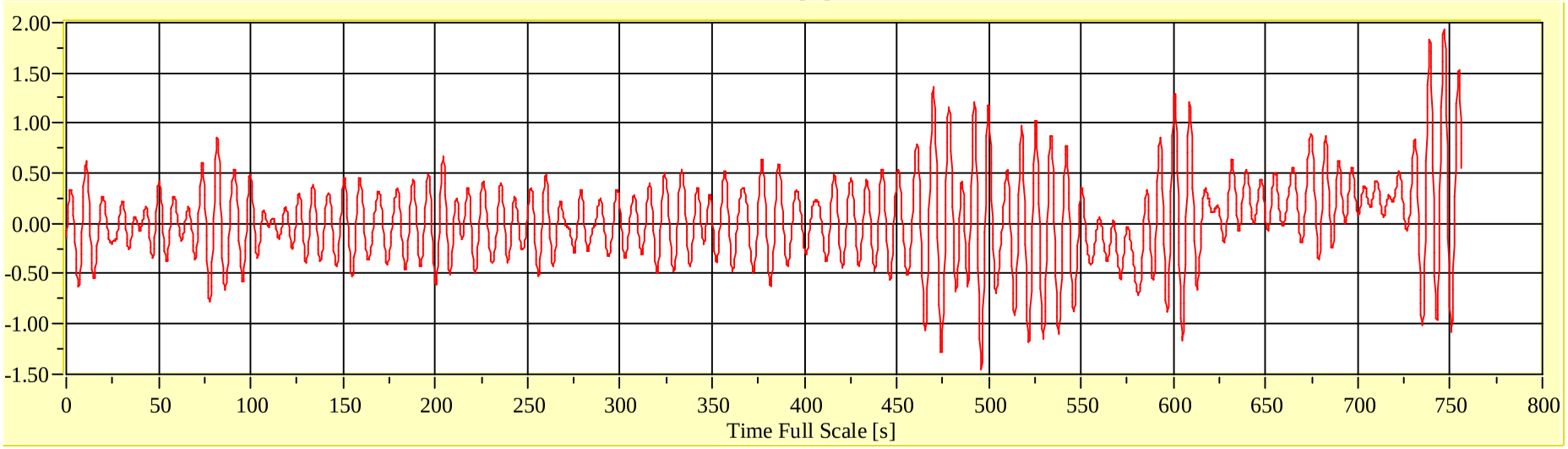


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

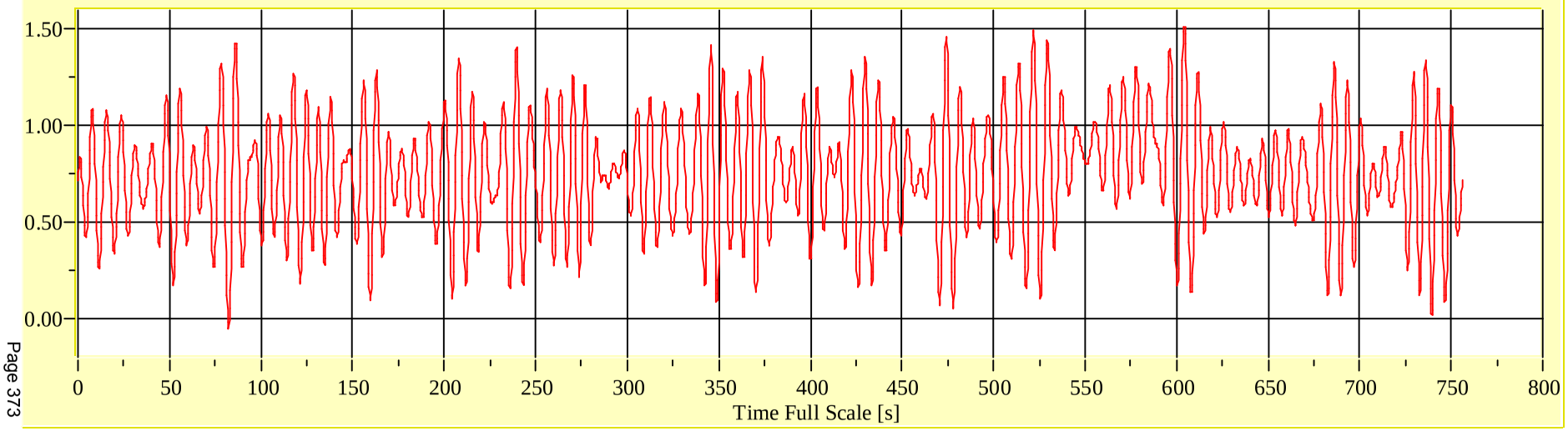
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29714-10	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



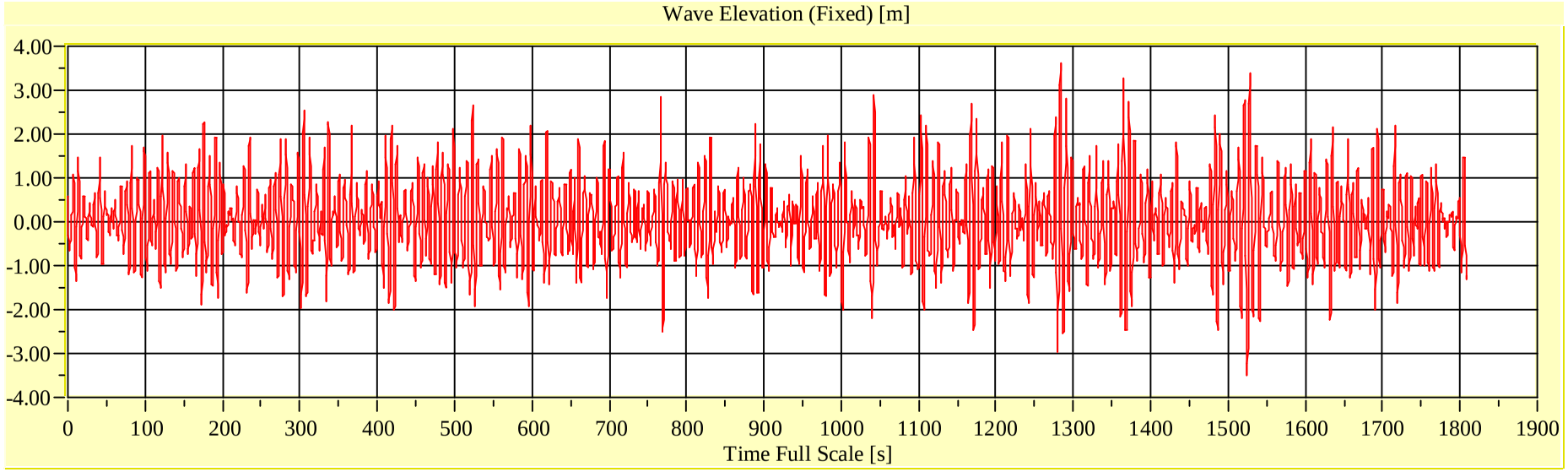
Pitch Angle [deg] (Stern Trim = Positiv)

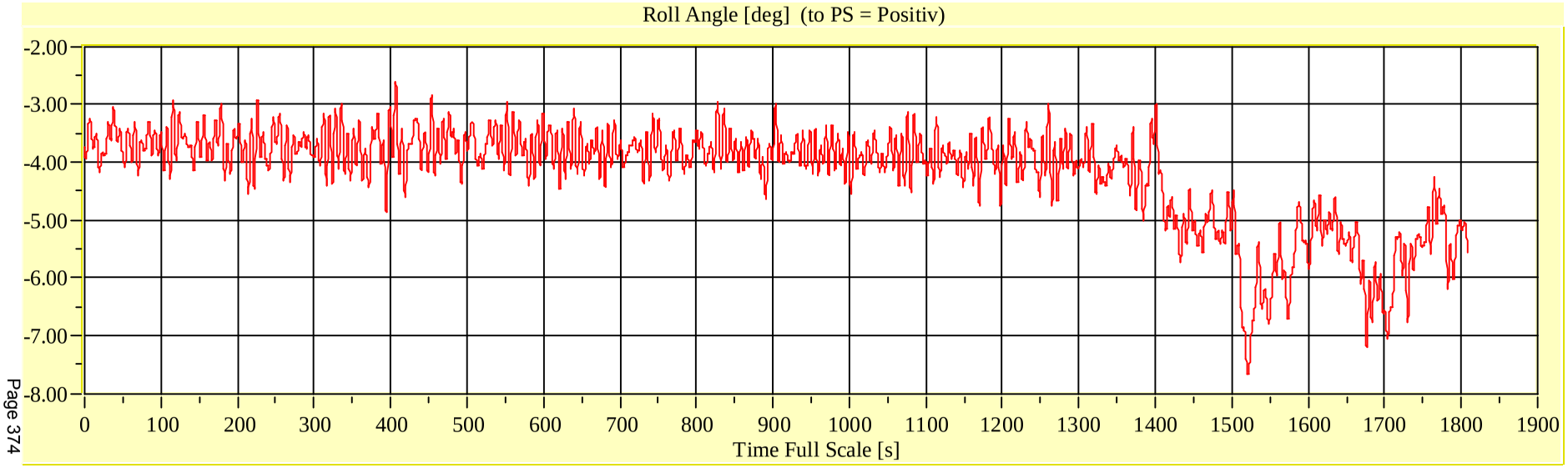


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

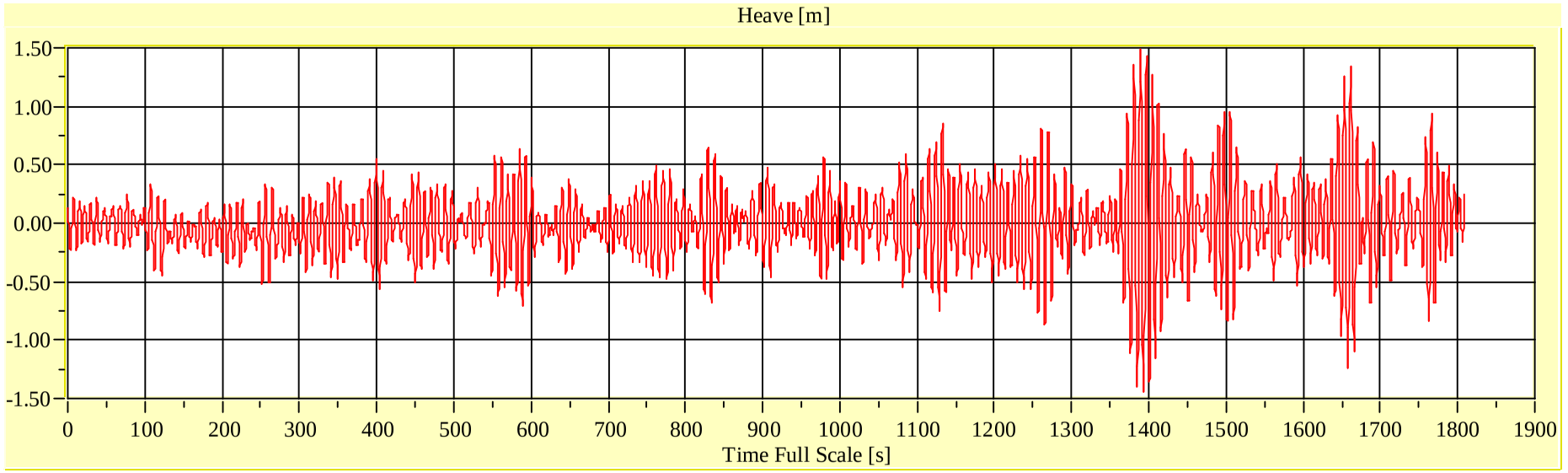


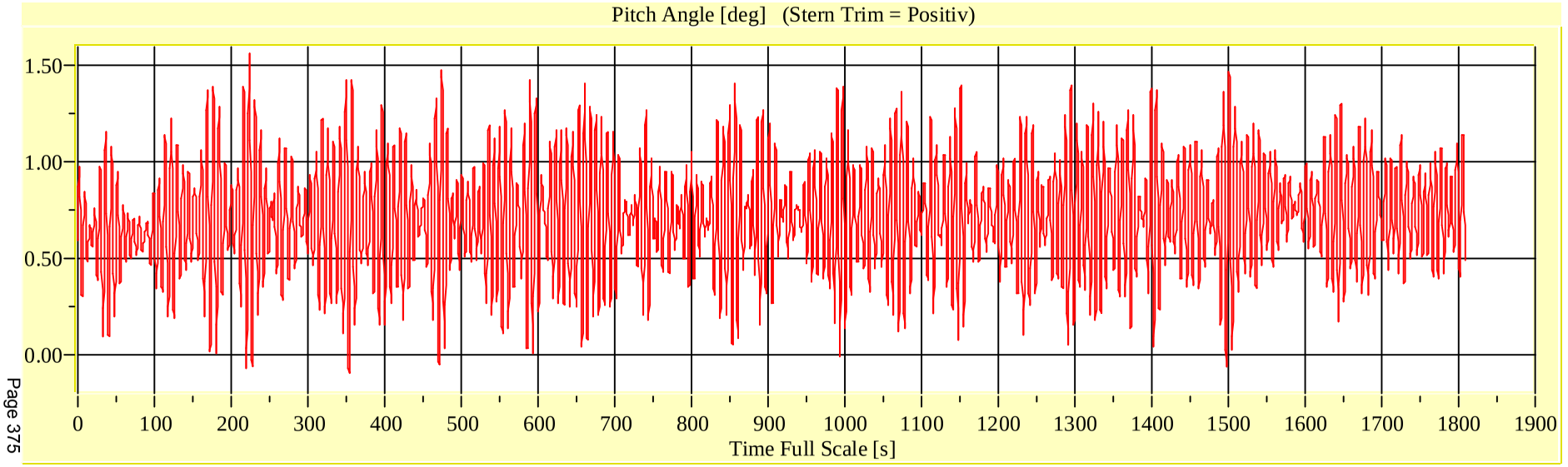


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

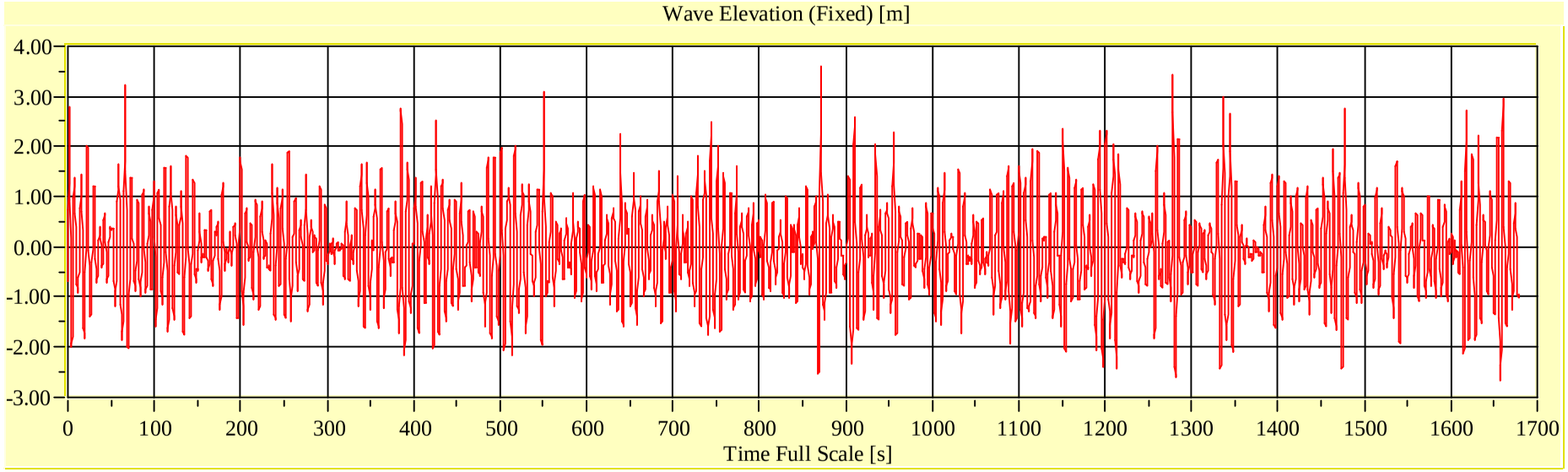


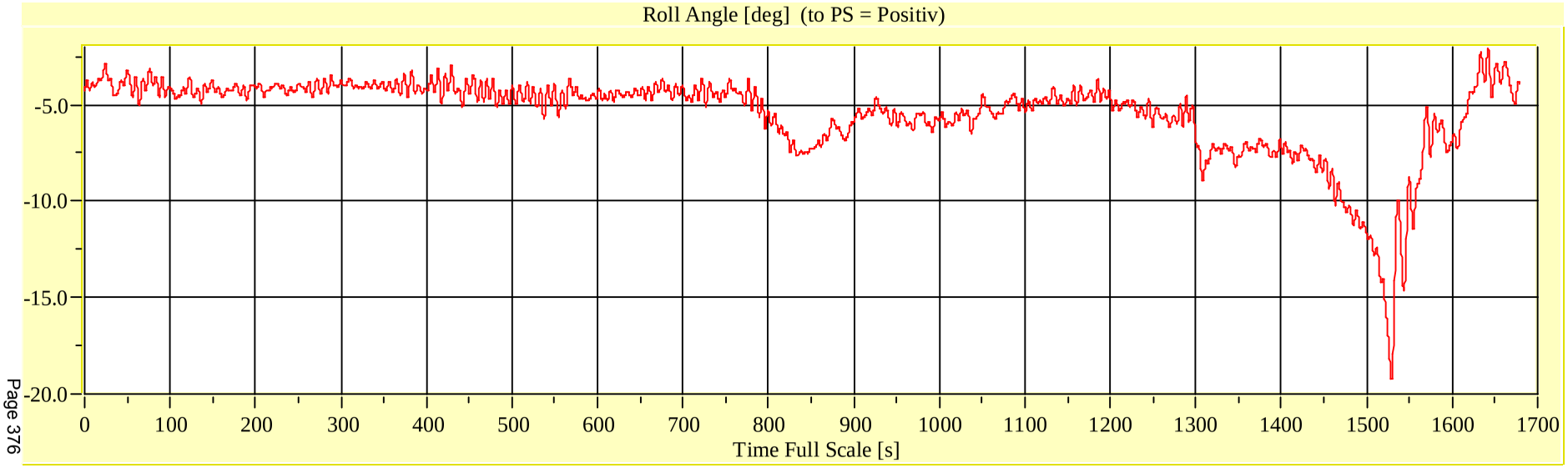


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

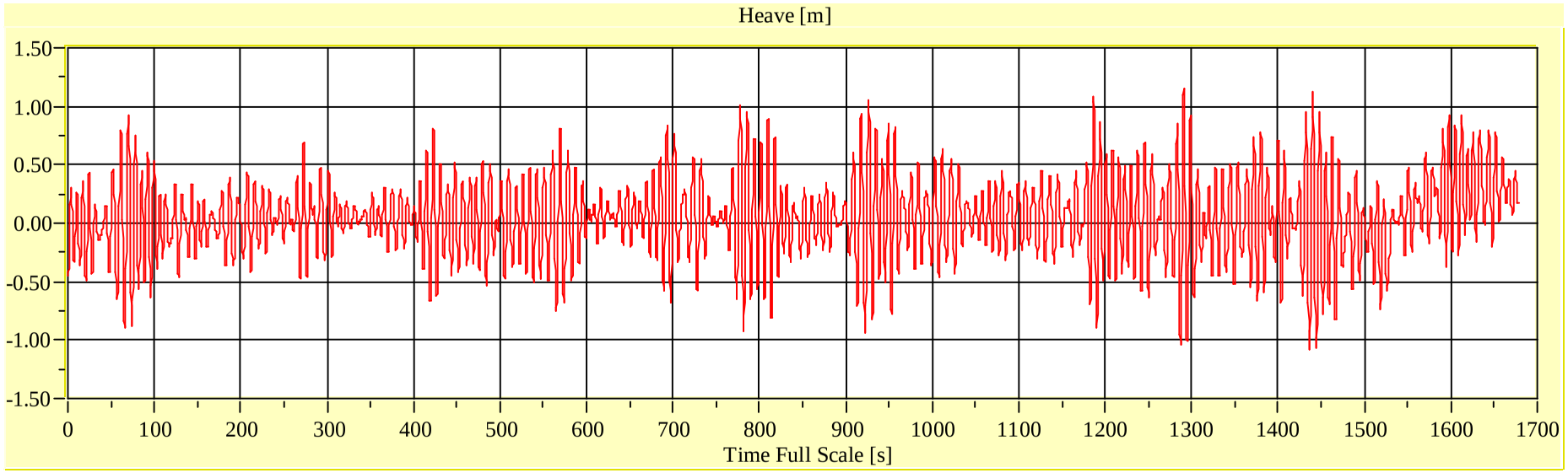


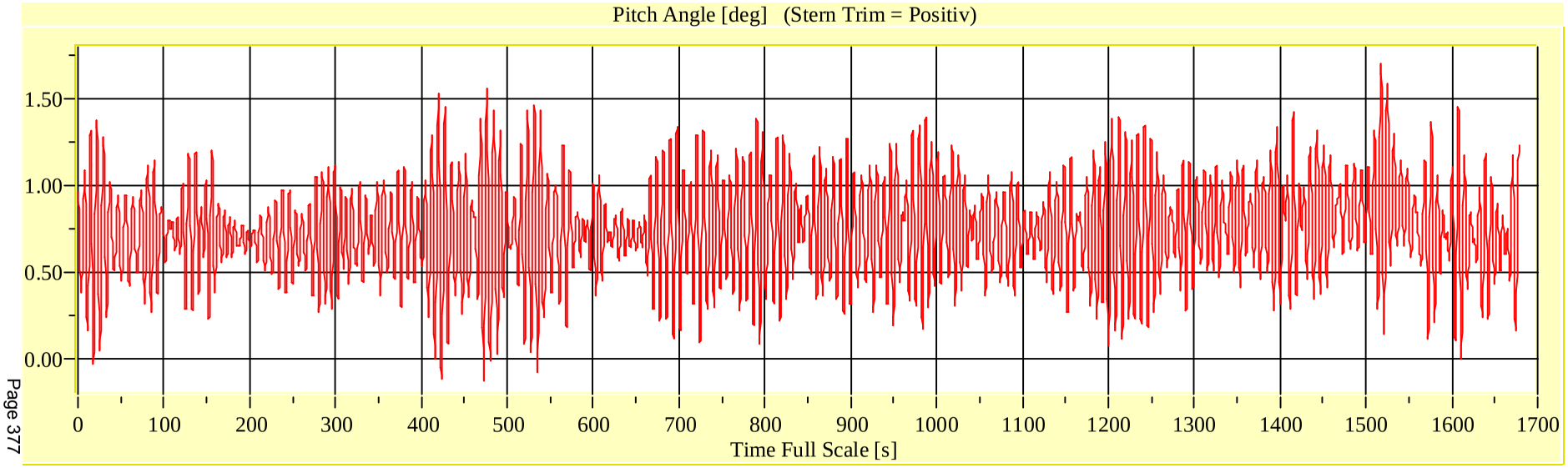


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

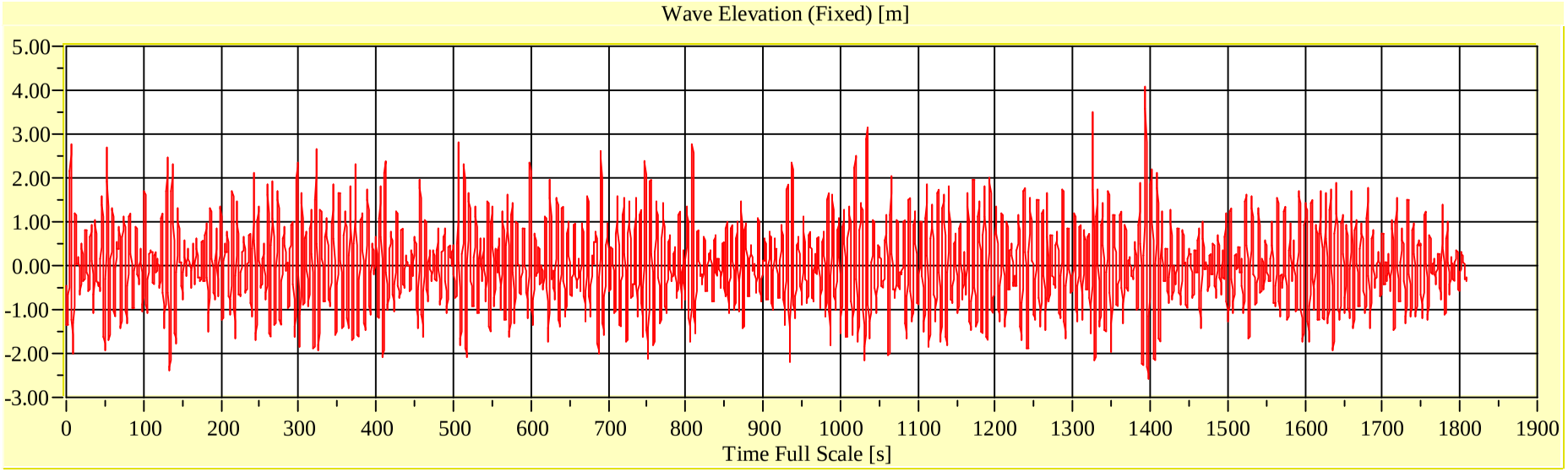


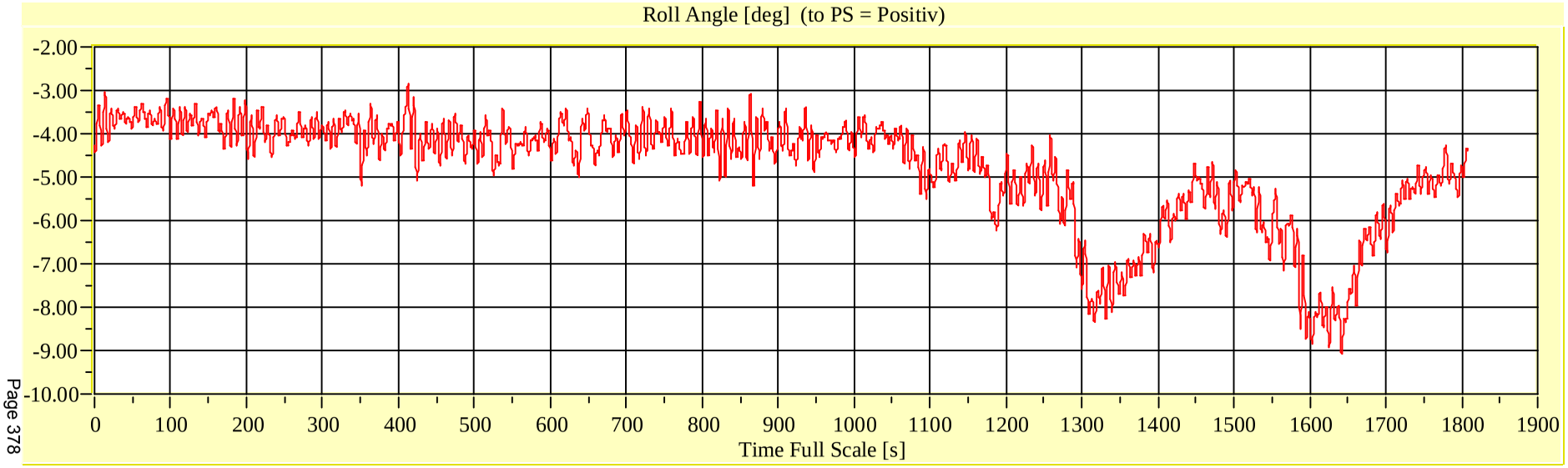


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

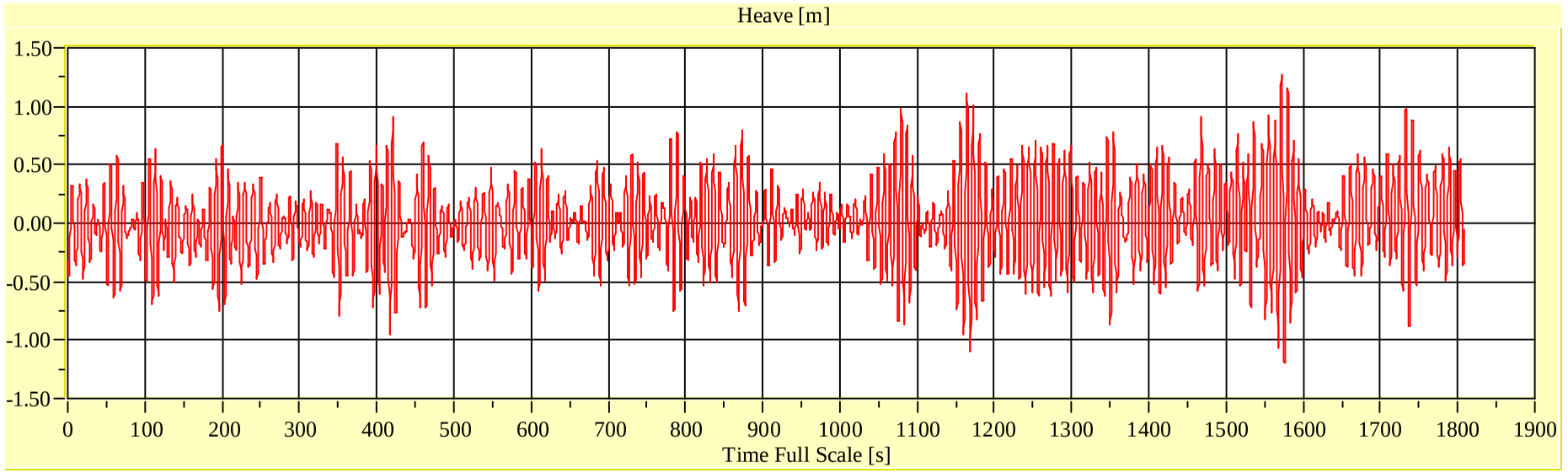


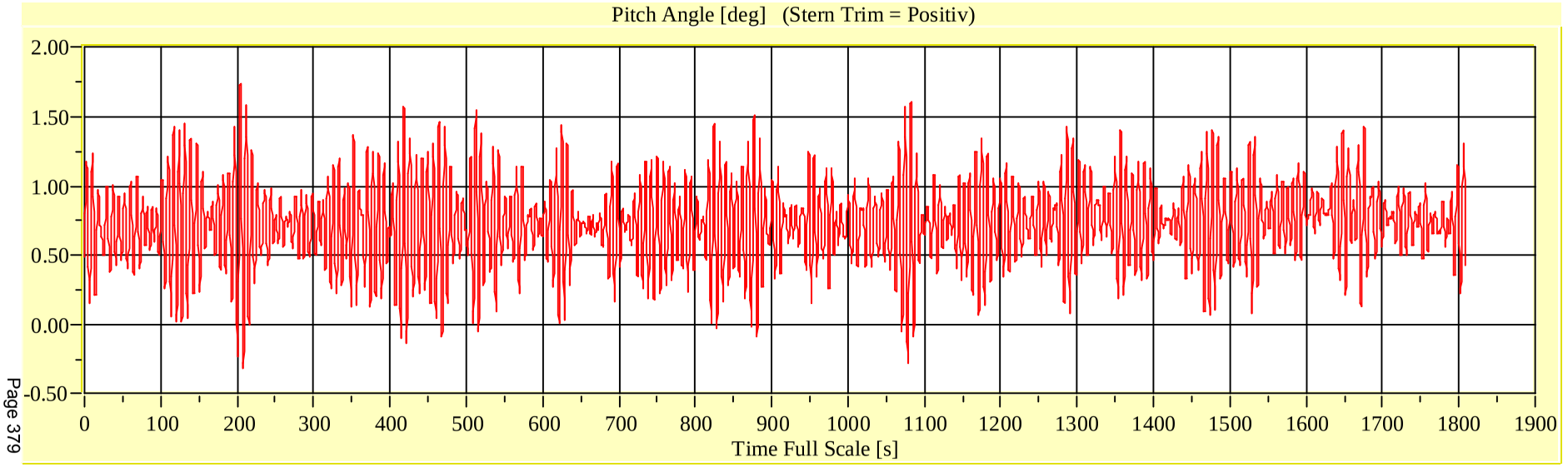


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

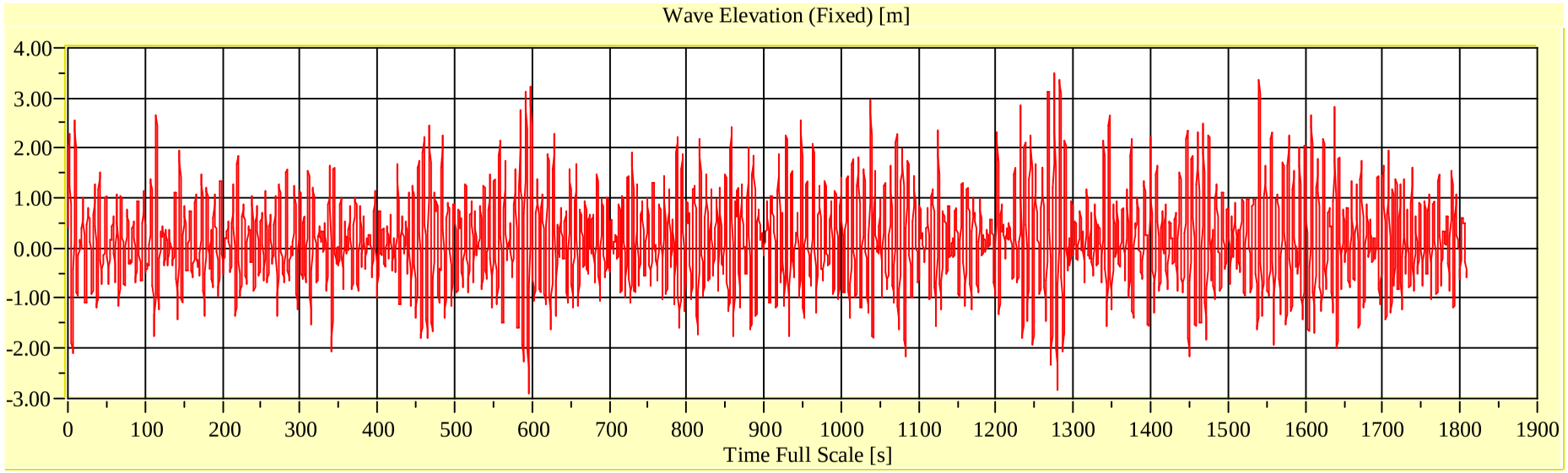


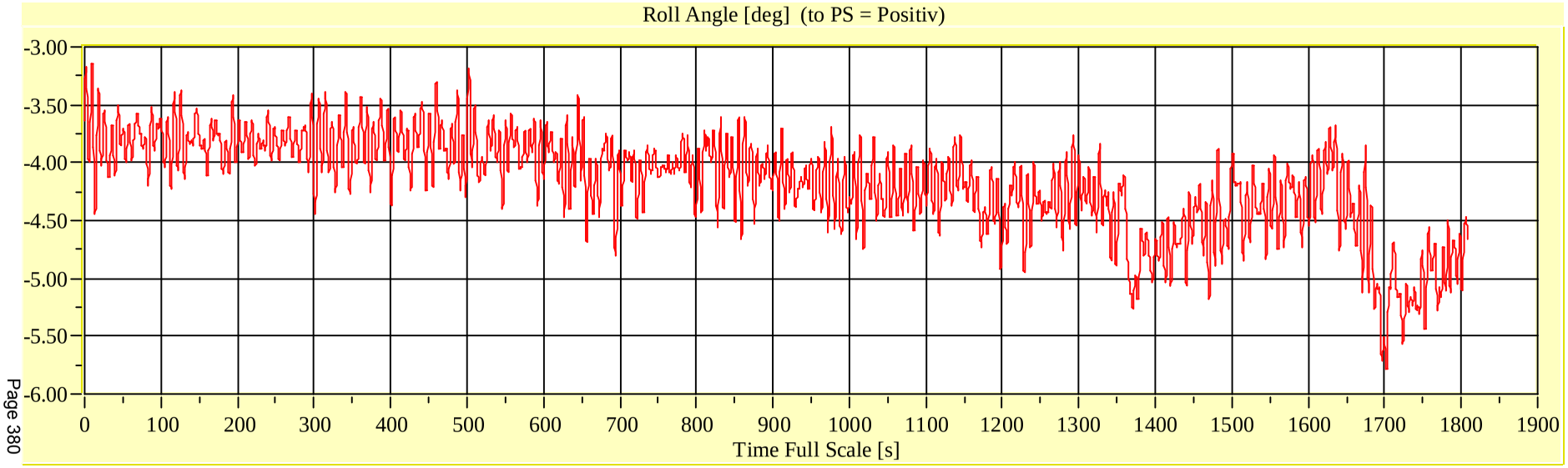


Date: 14.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

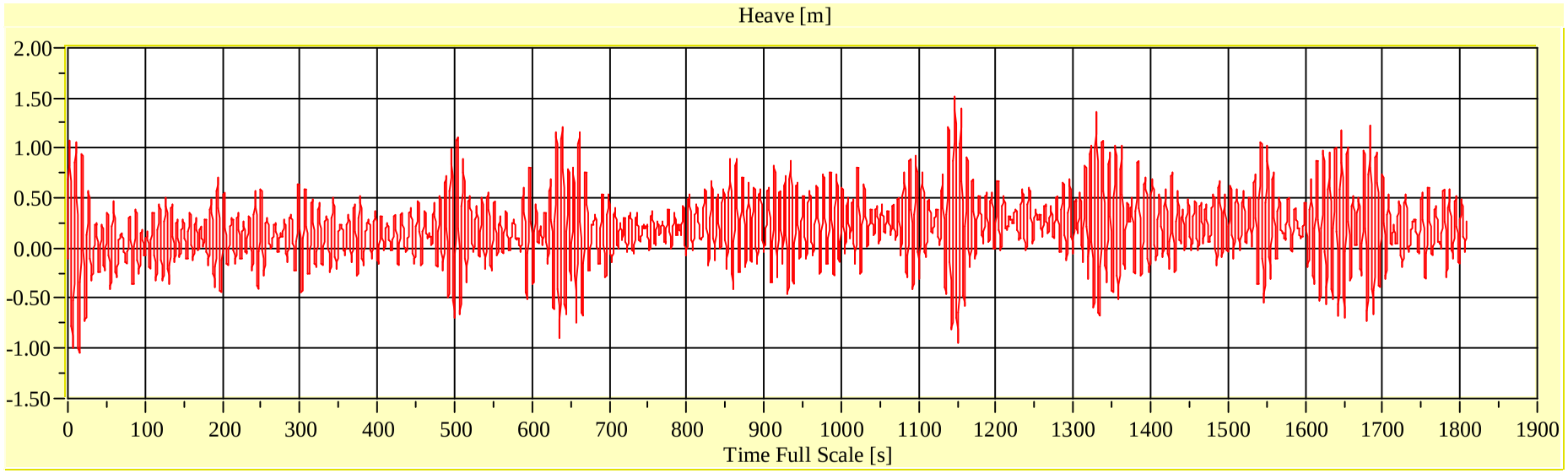


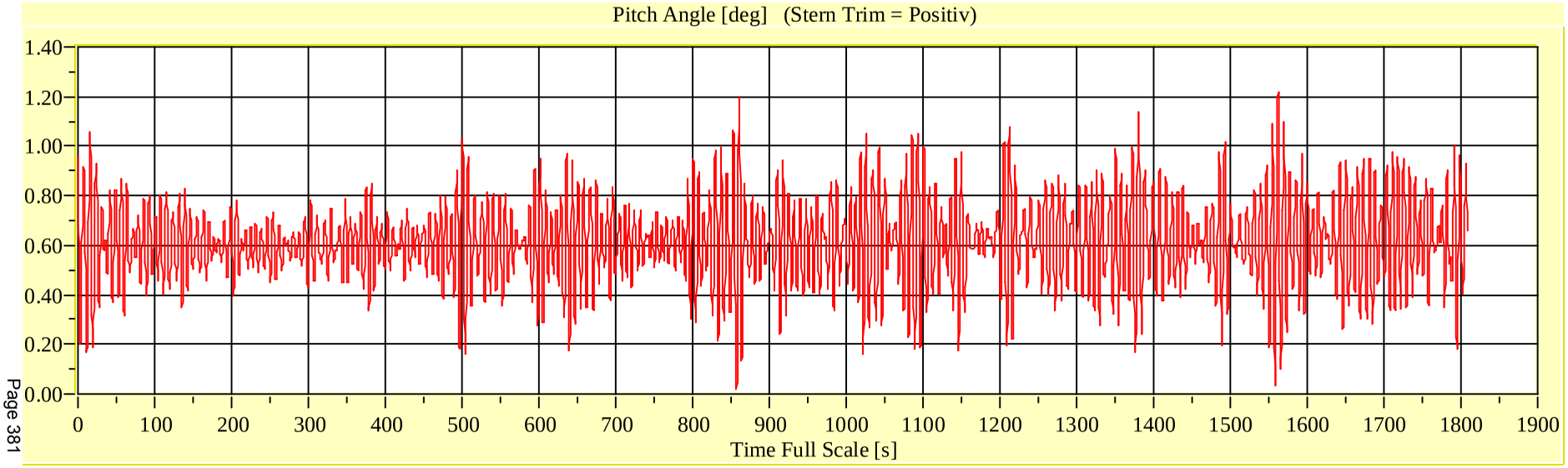


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

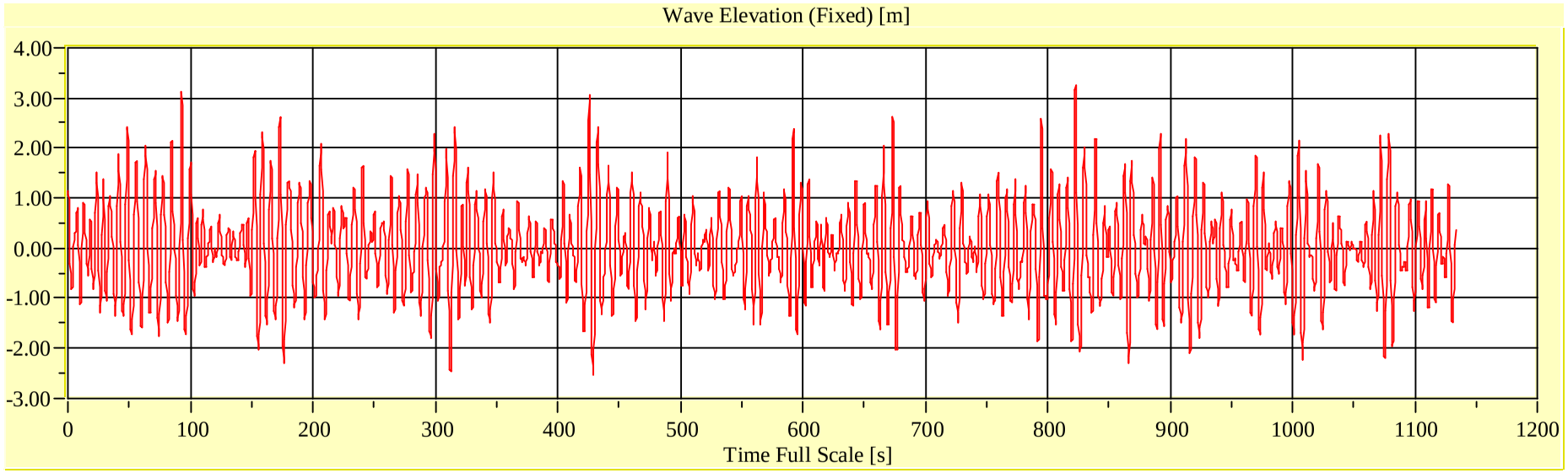


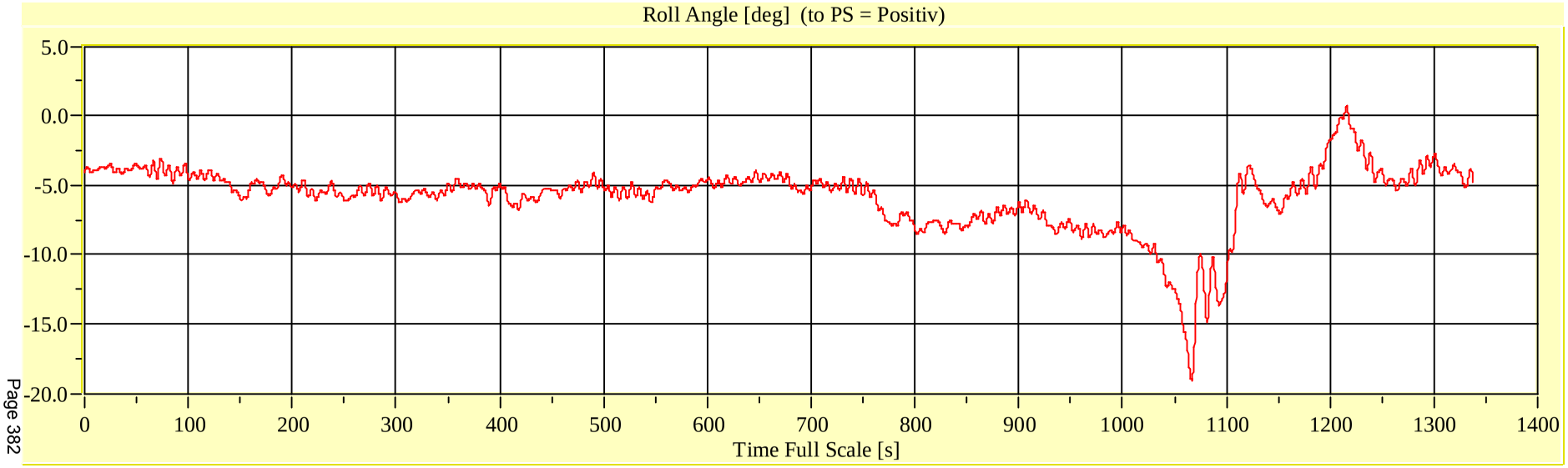


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

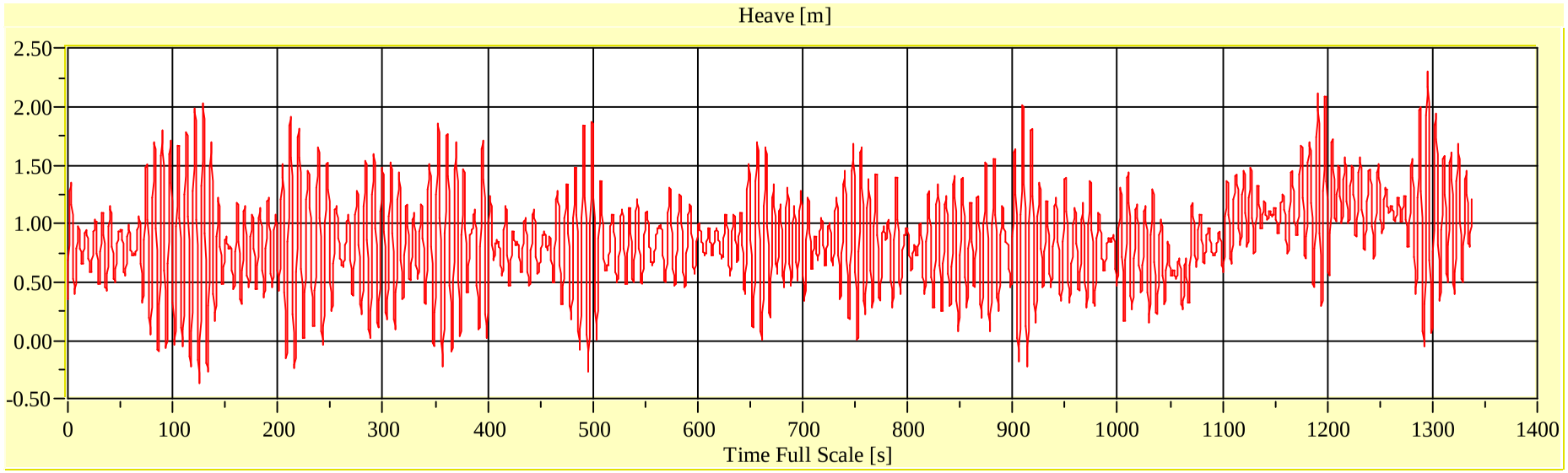


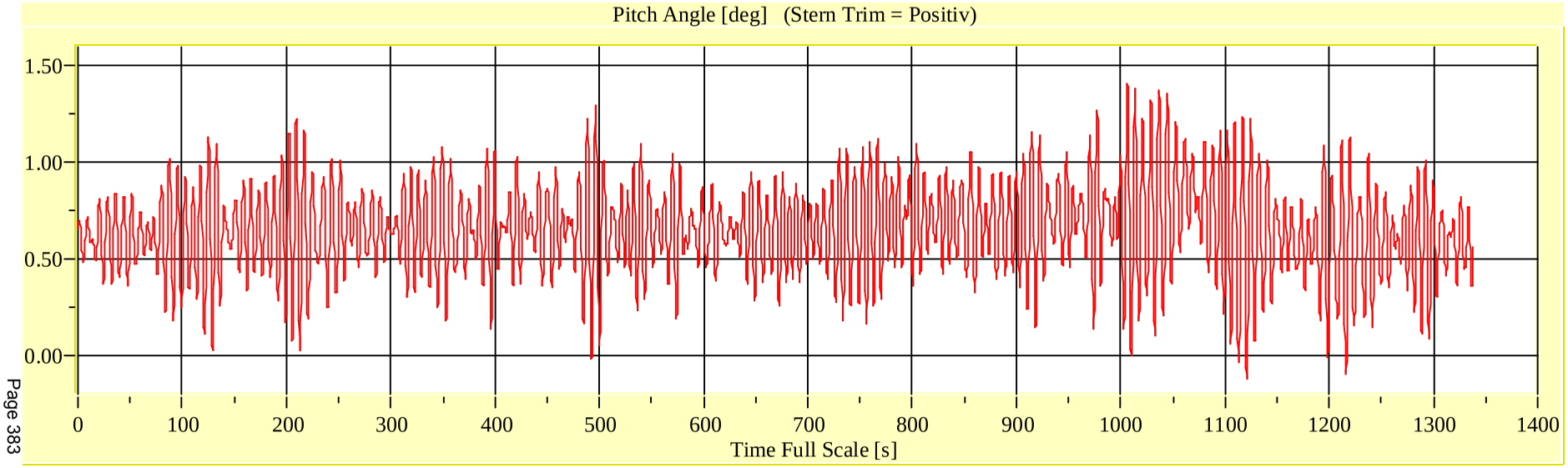


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

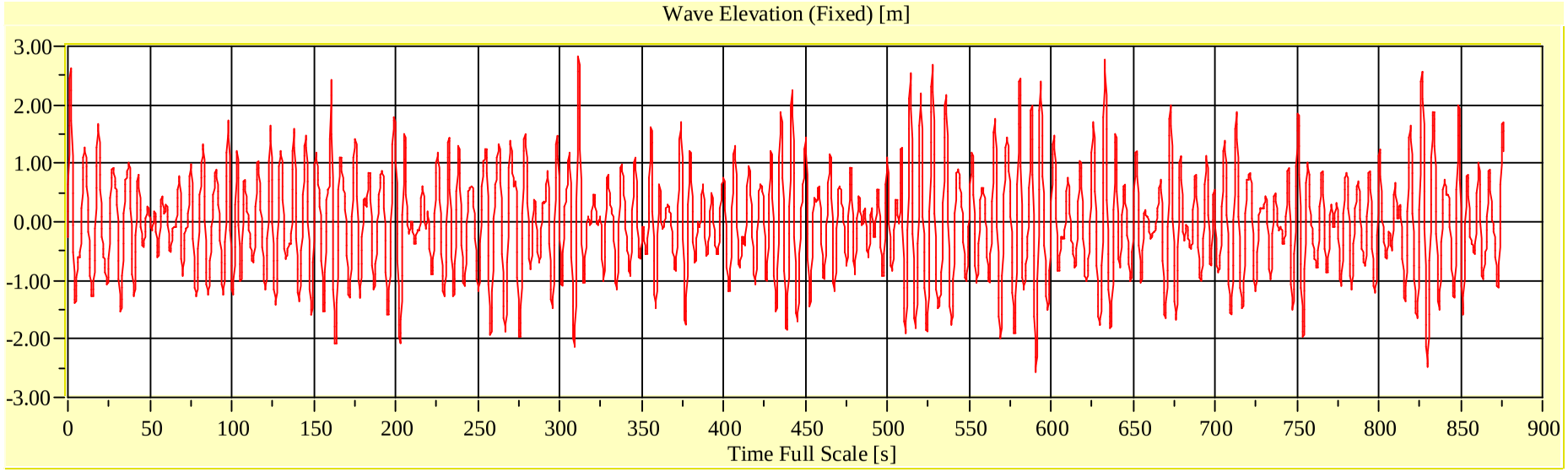


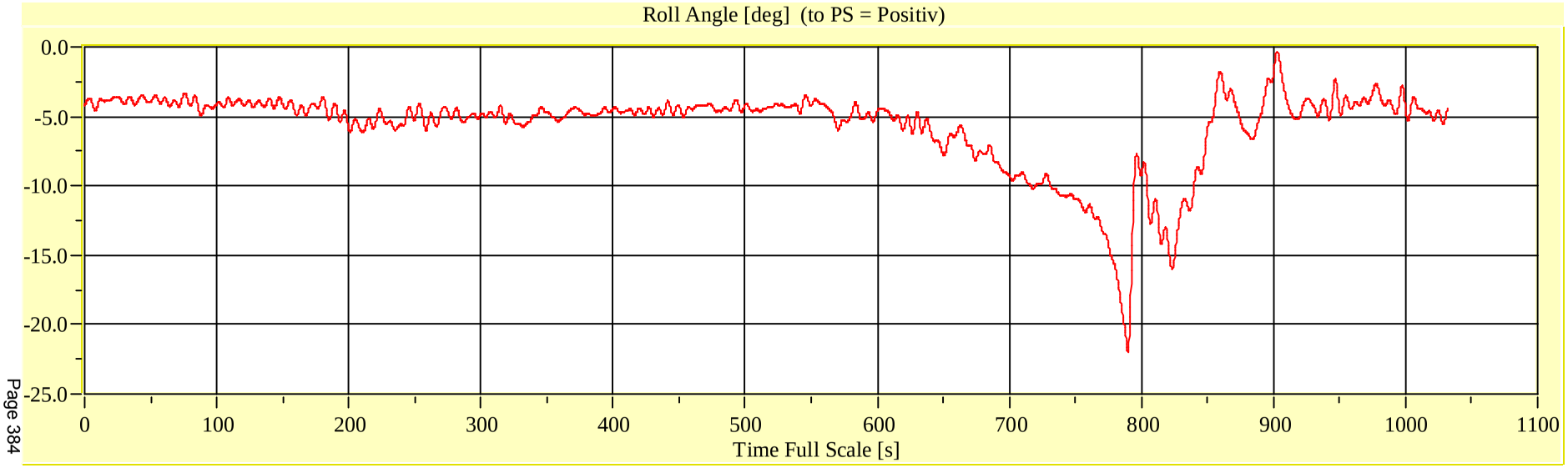


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

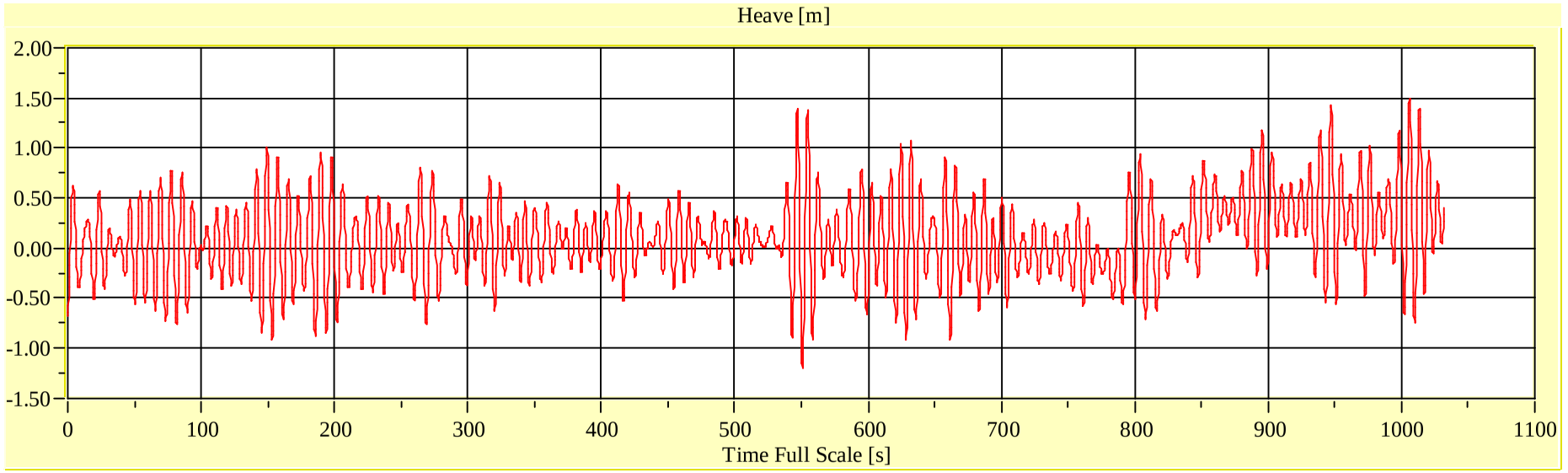


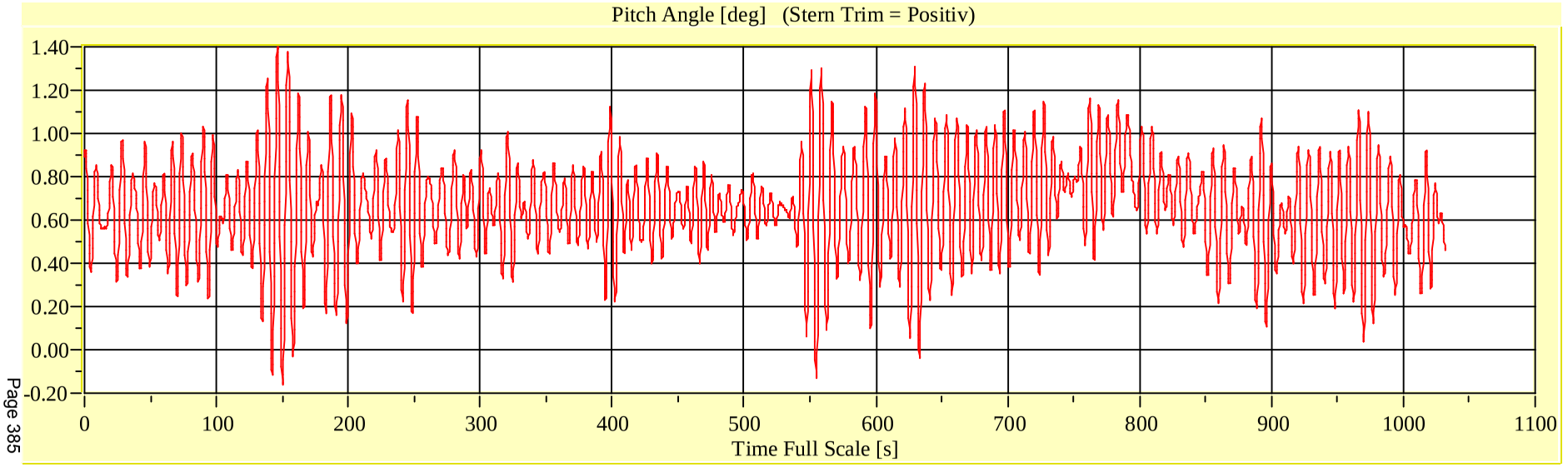


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

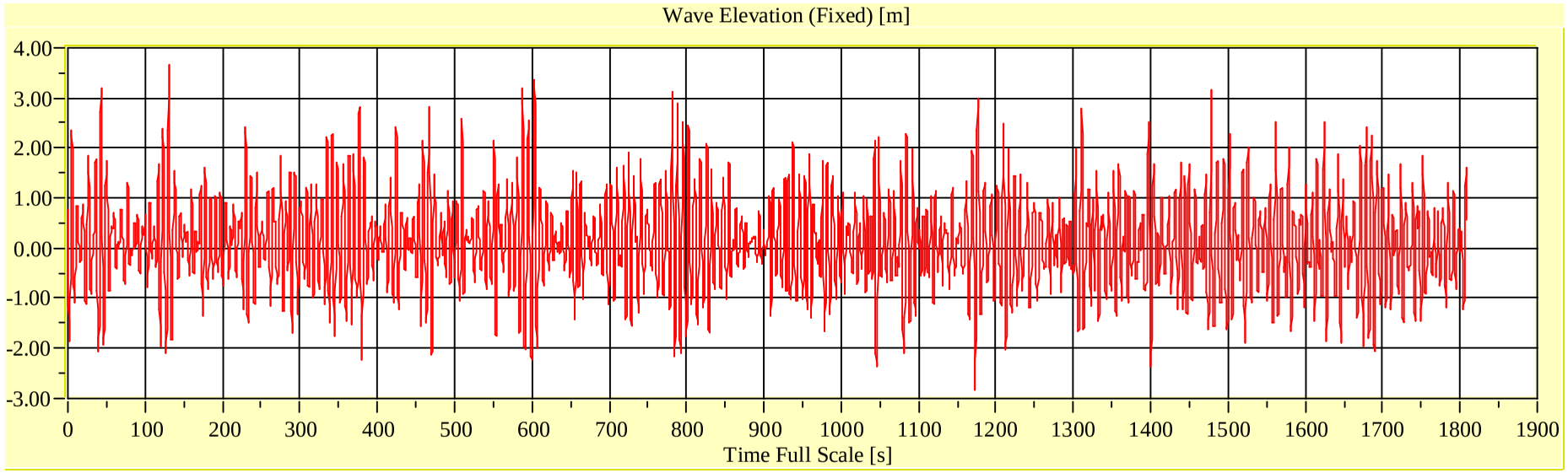


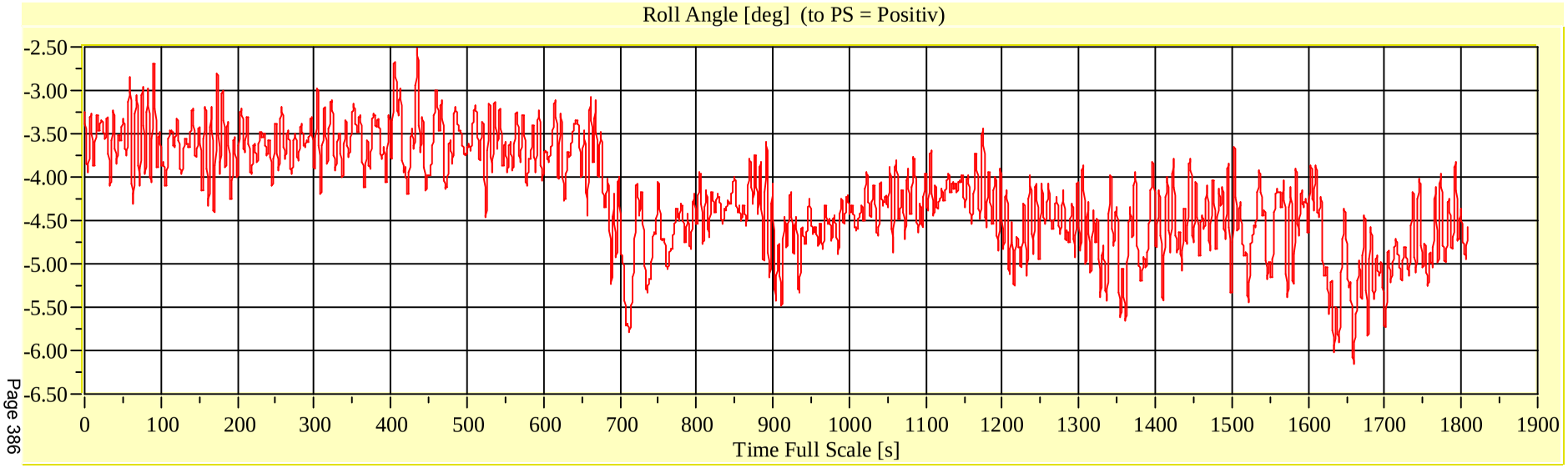


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

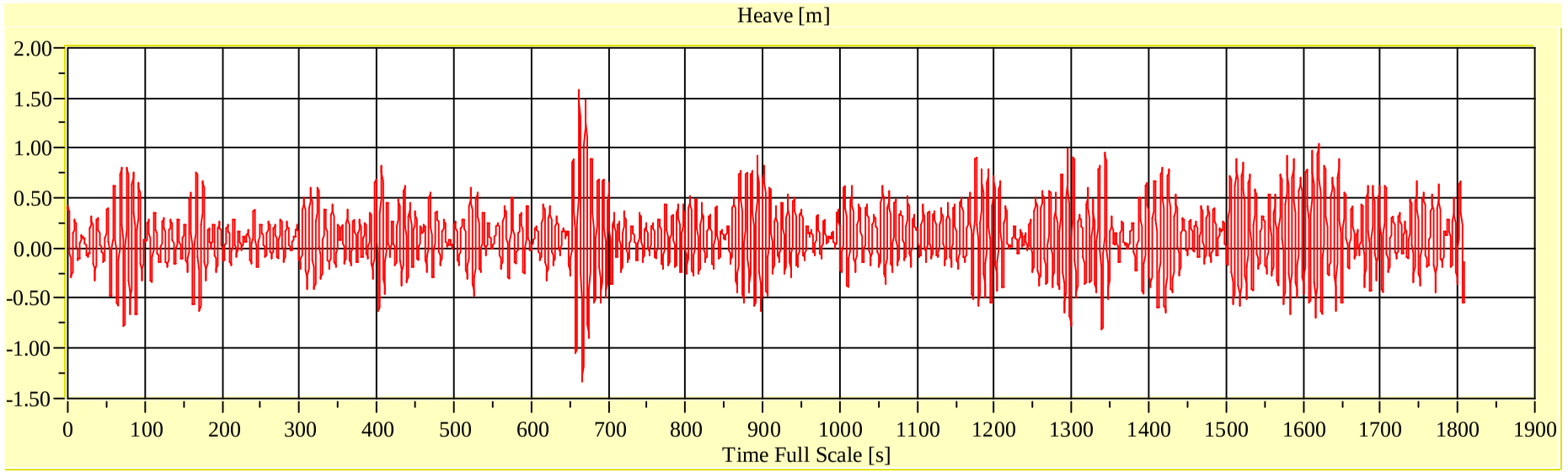


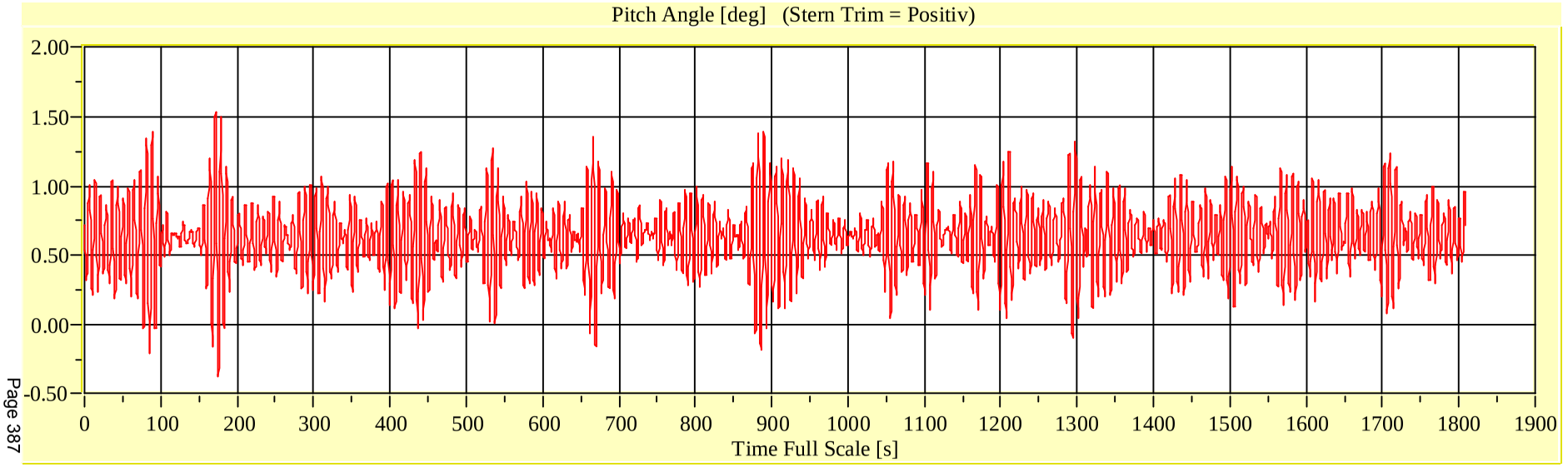


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

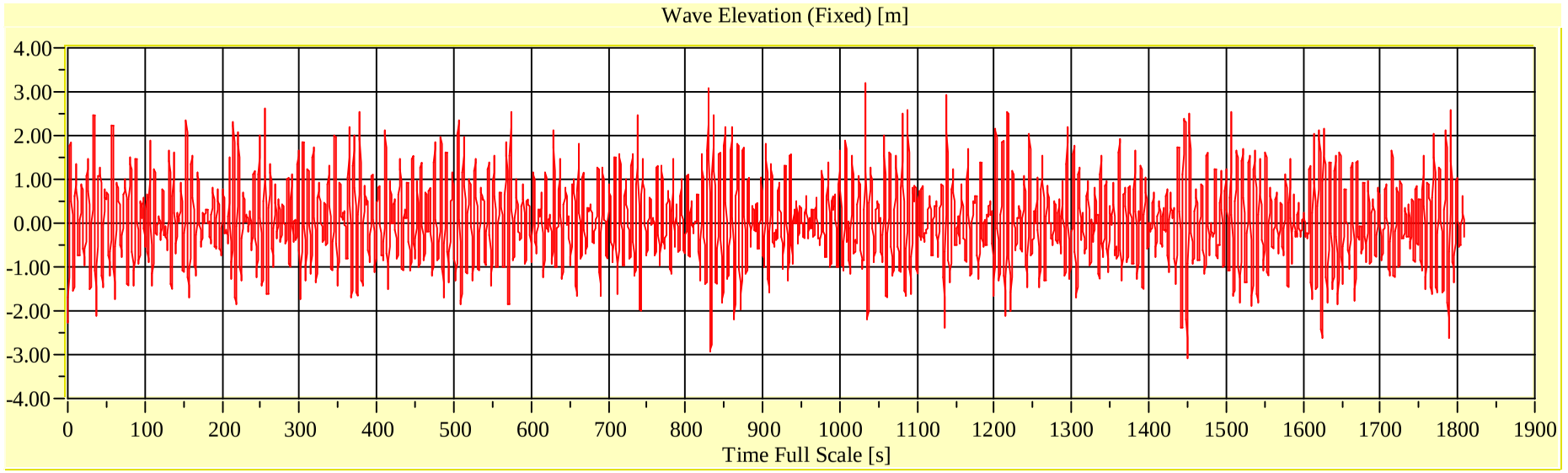


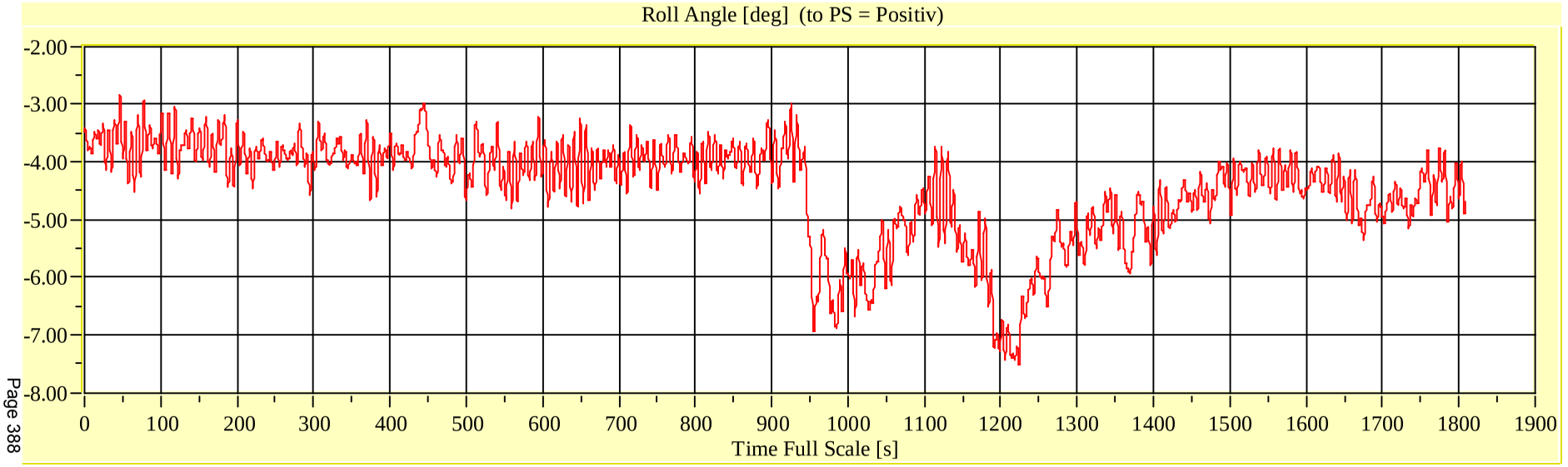


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

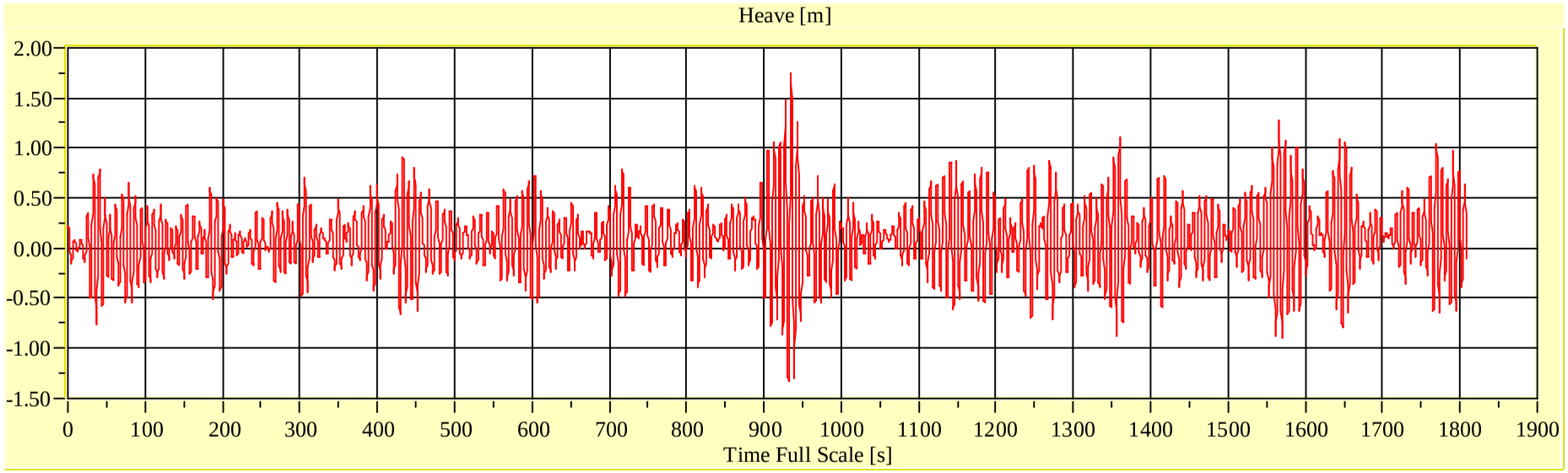


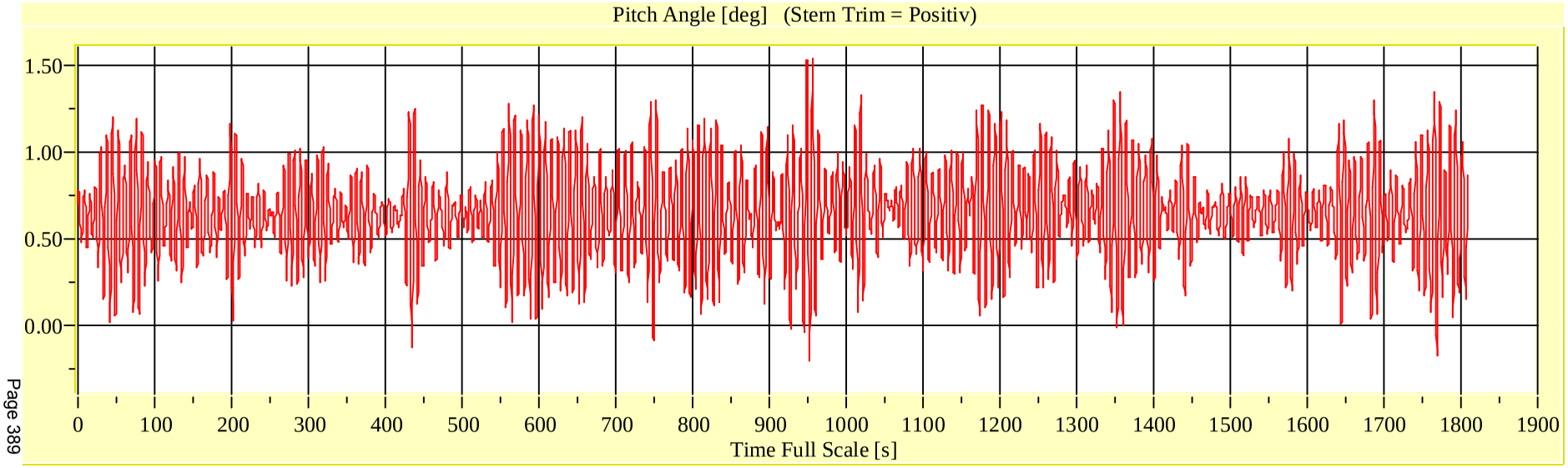


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

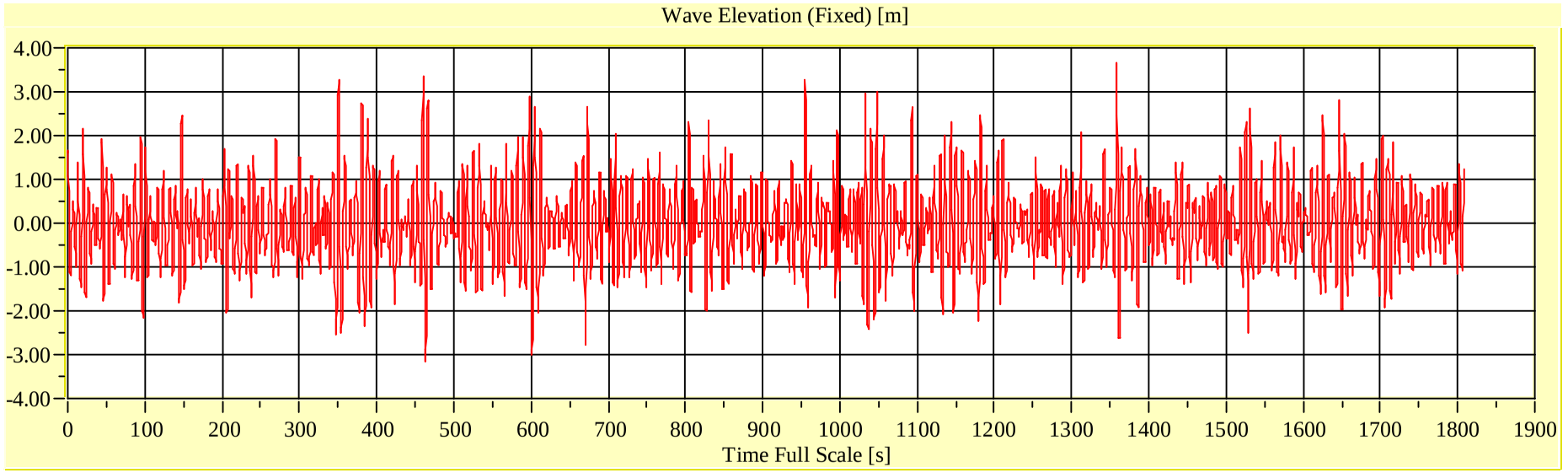


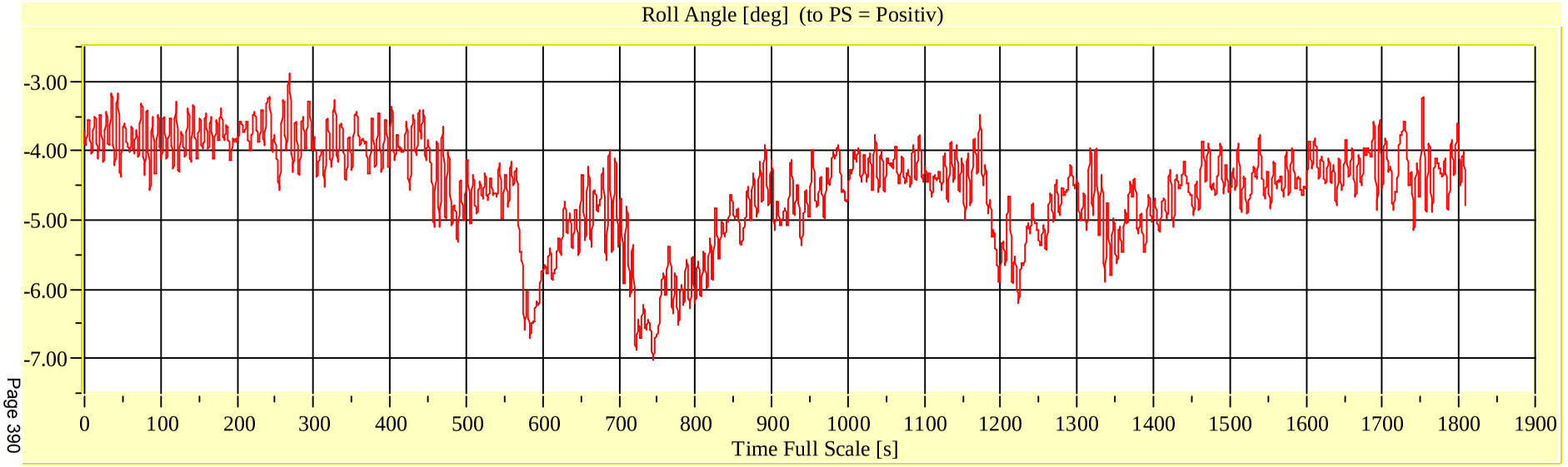


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

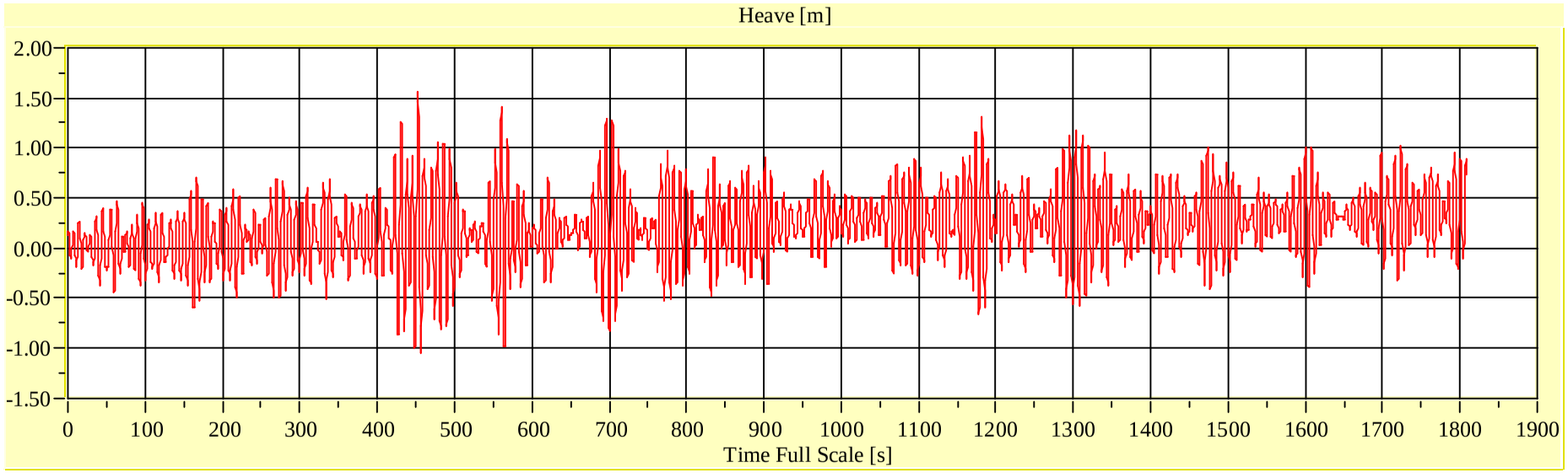


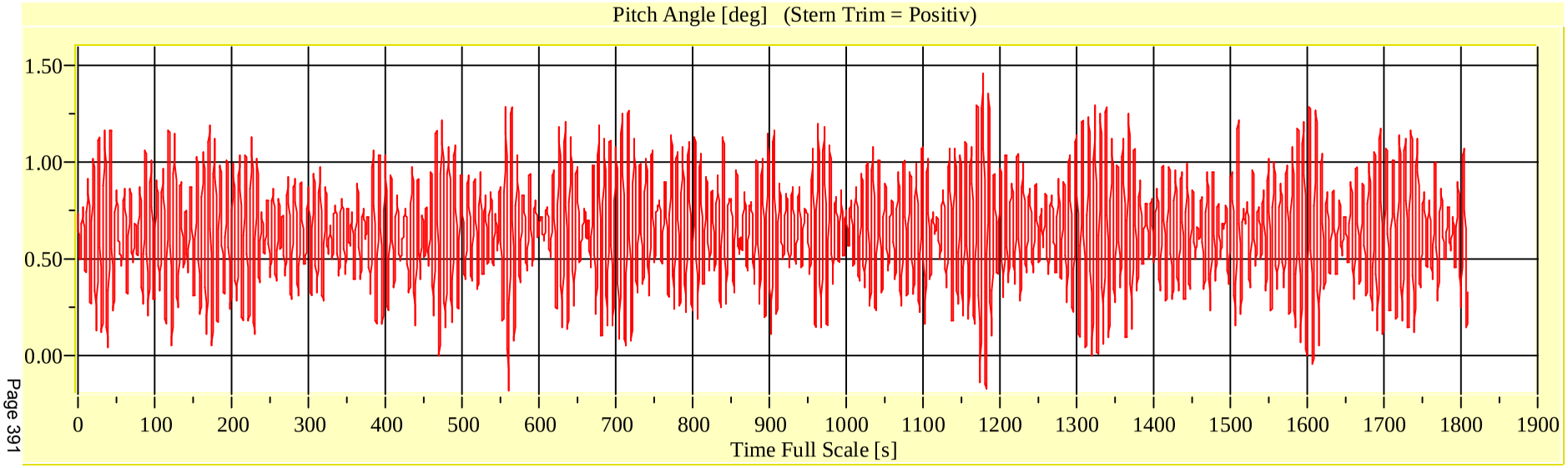


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

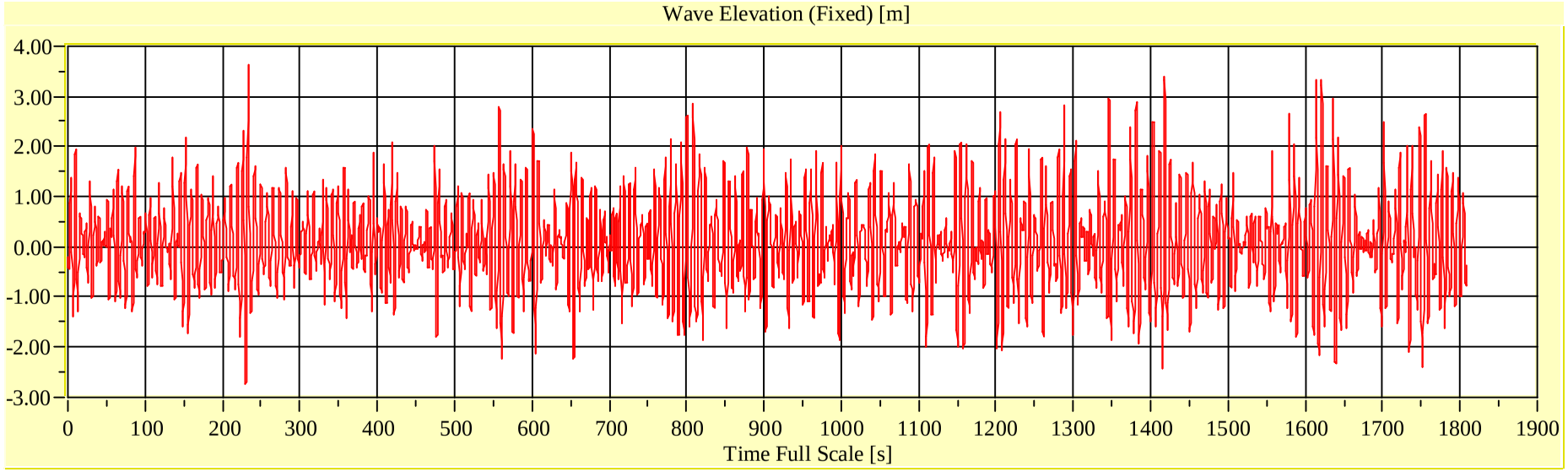


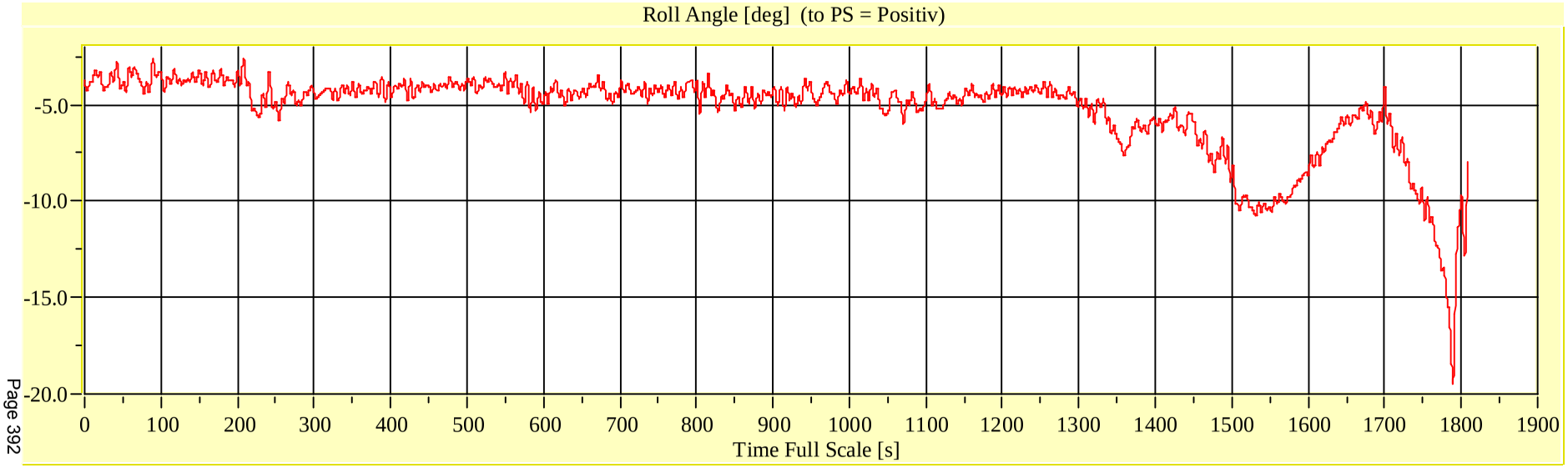


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

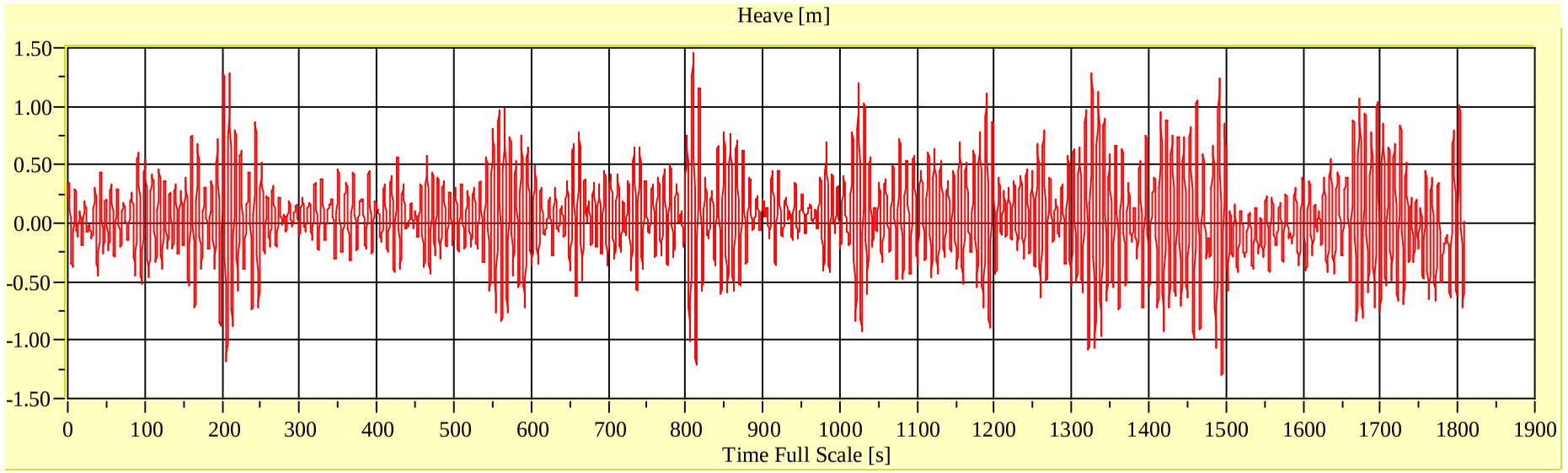


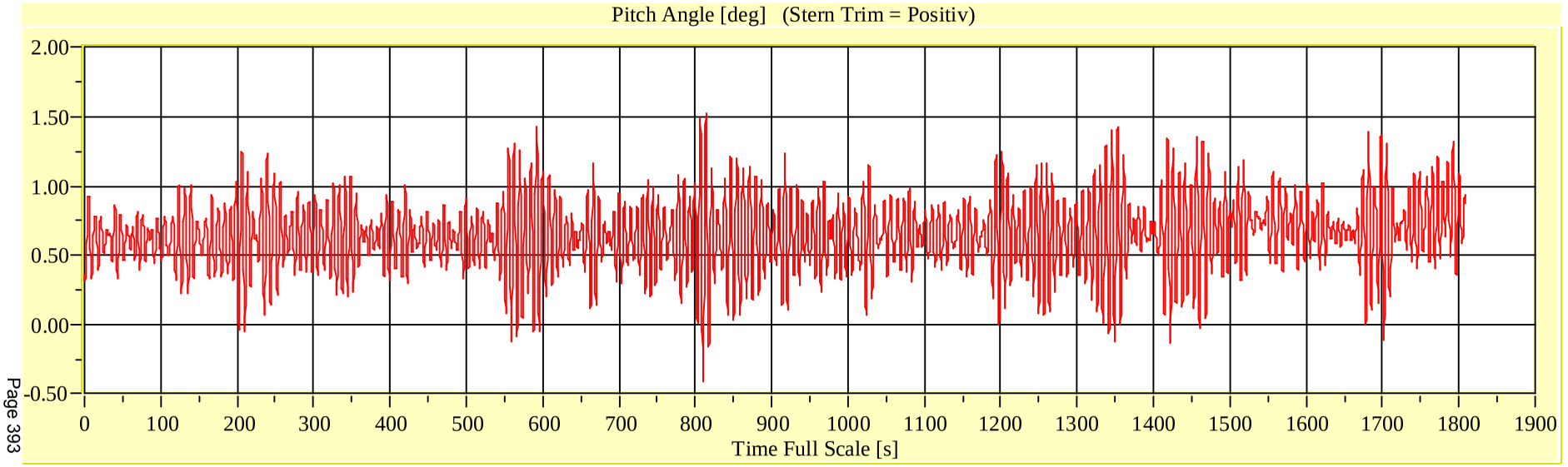


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29715-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

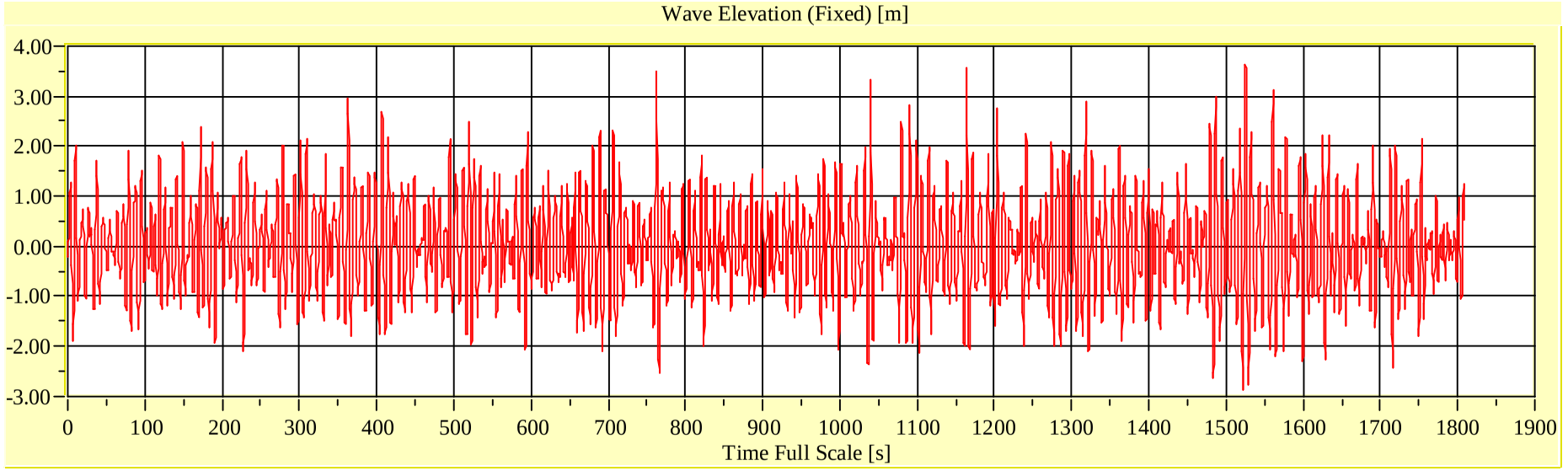


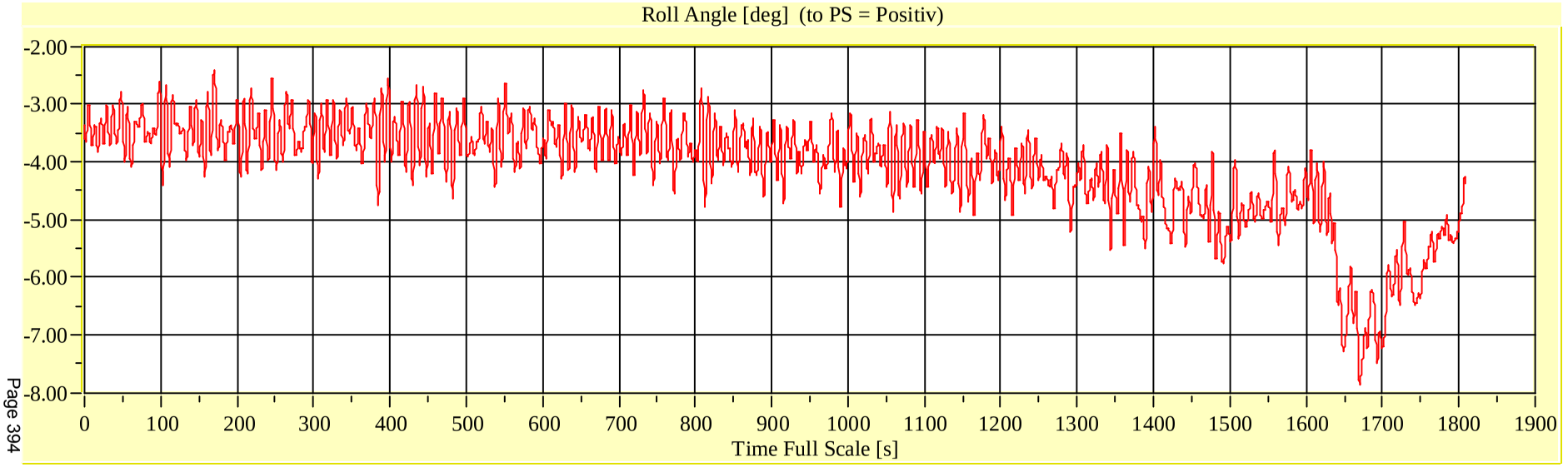


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-01	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



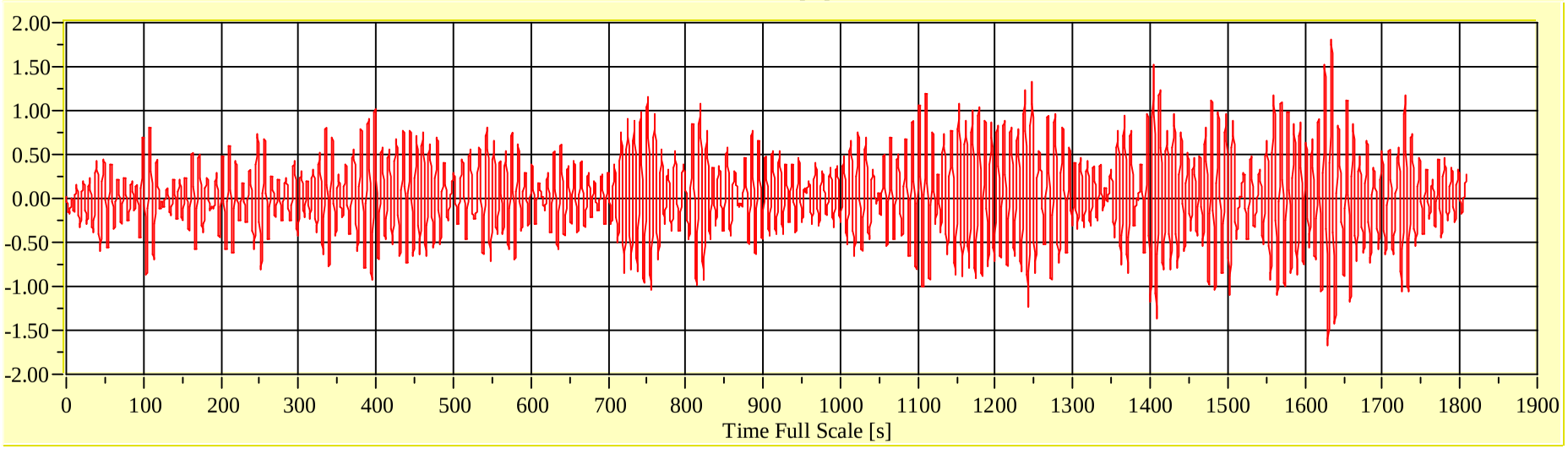


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

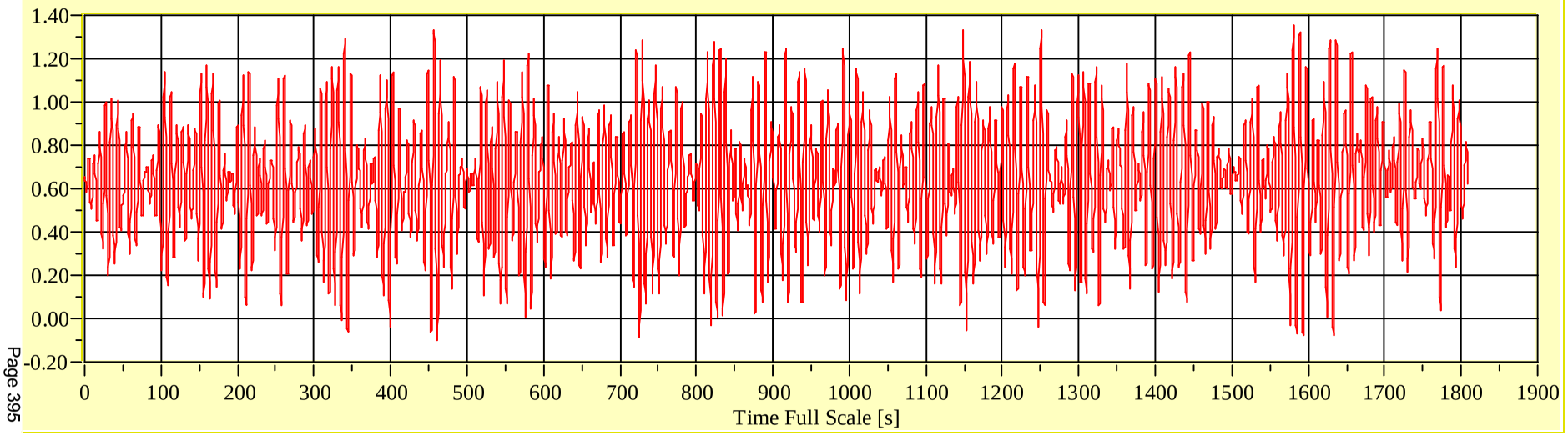
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-01	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



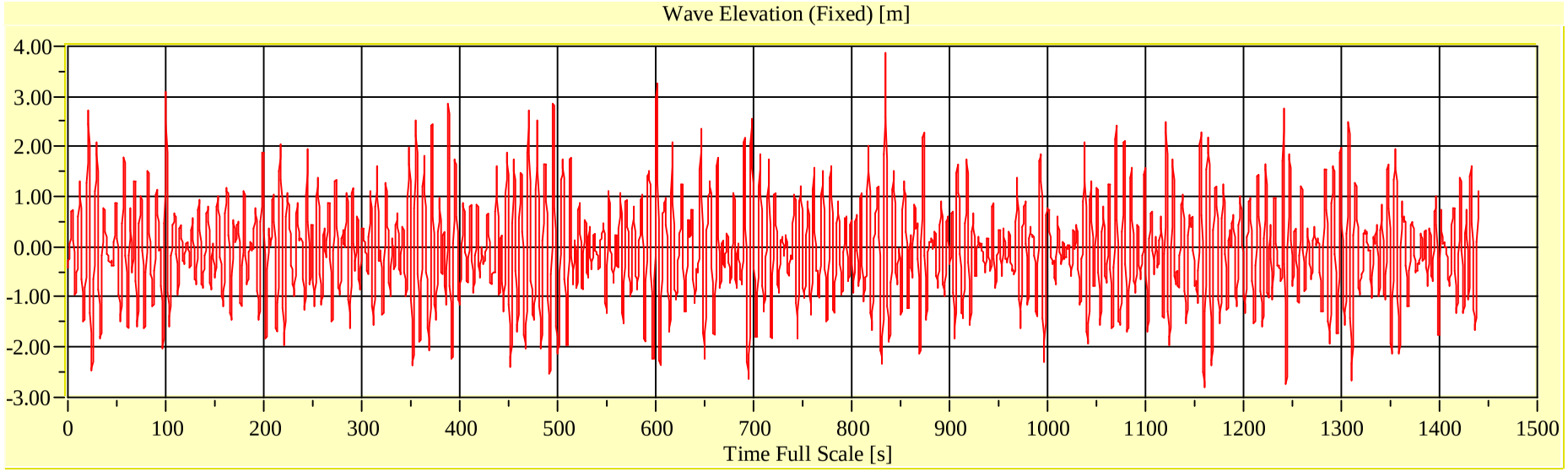
Pitch Angle [deg] (Stern Trim = Positiv)

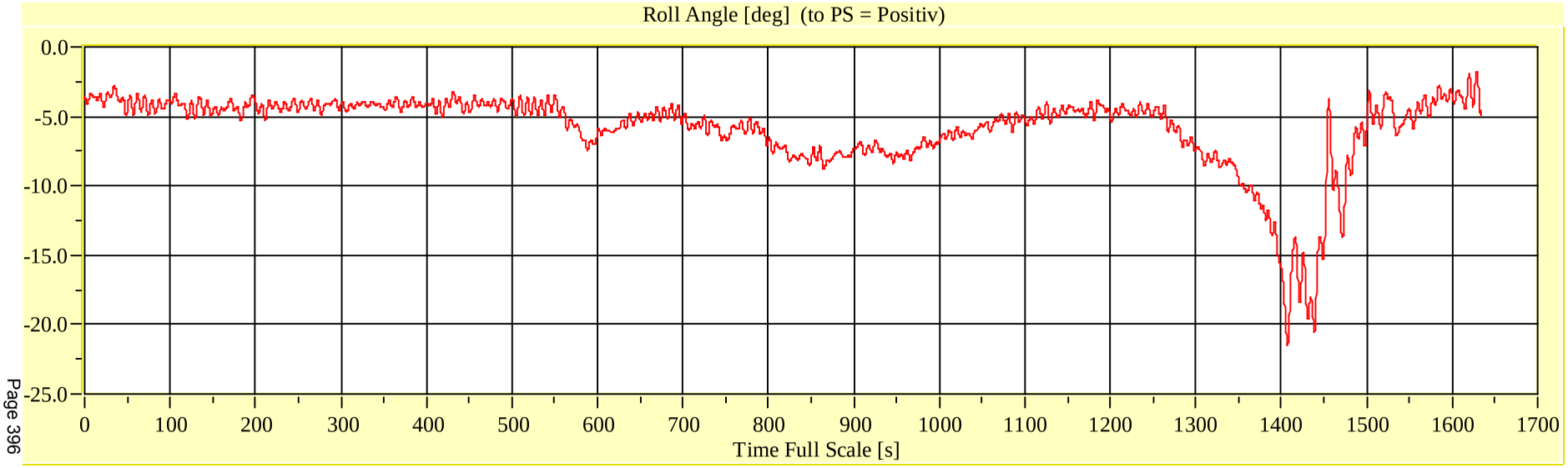


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-02	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

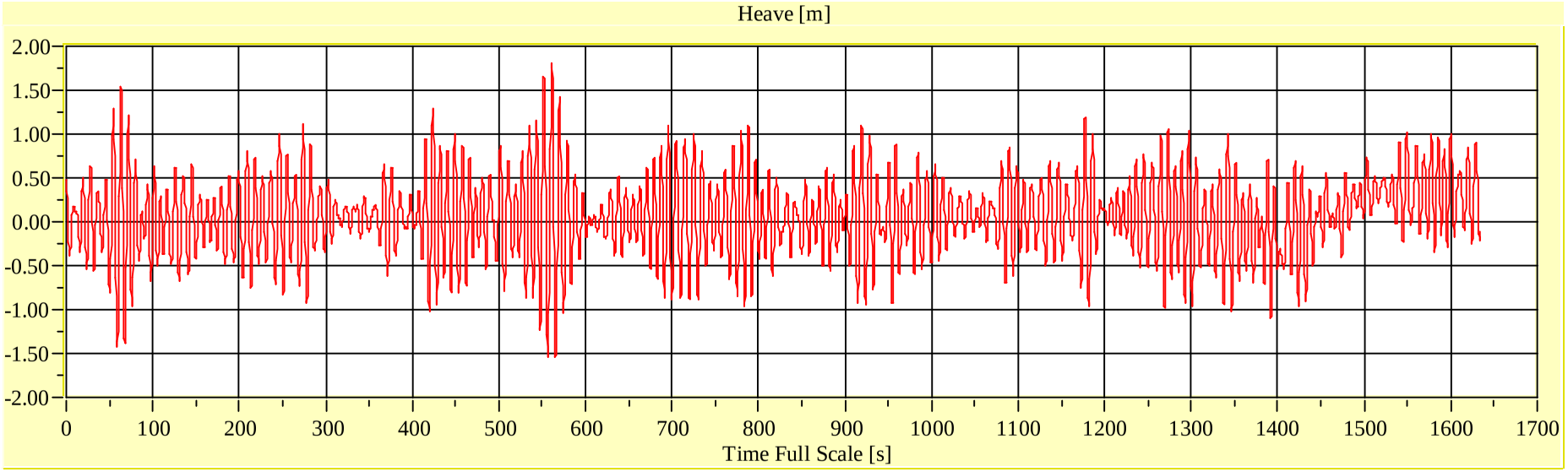


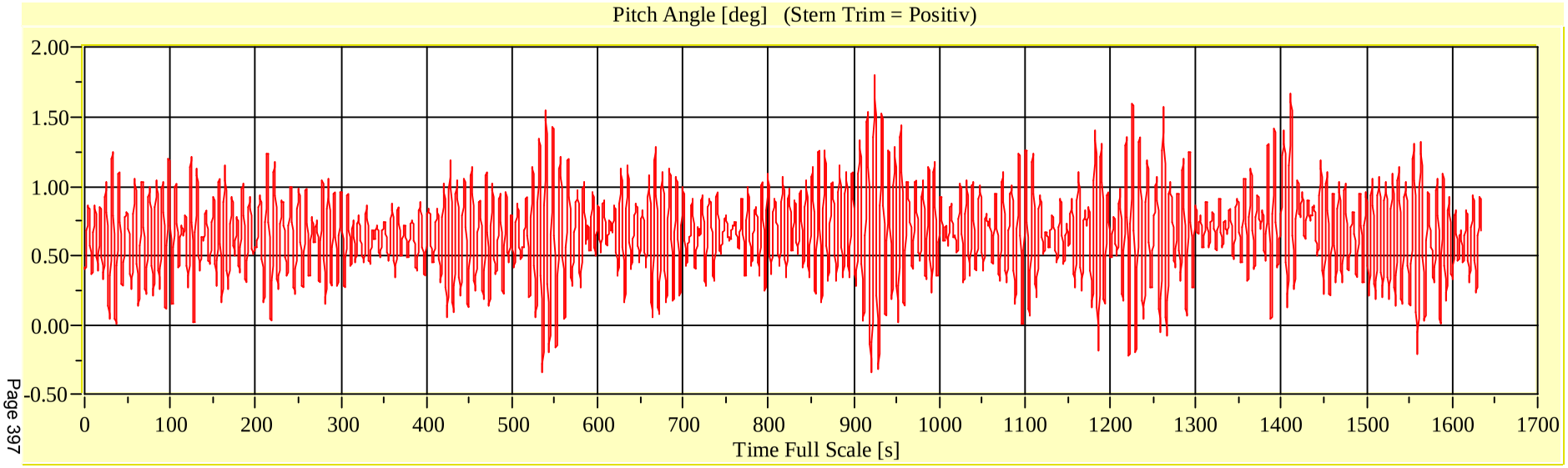


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-02	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

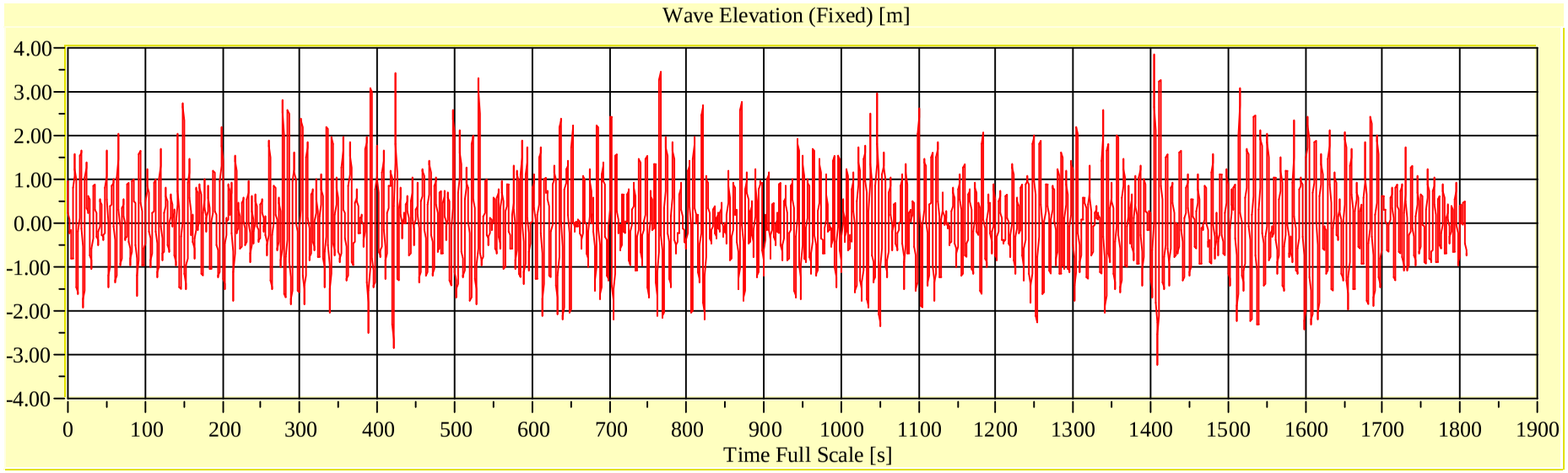


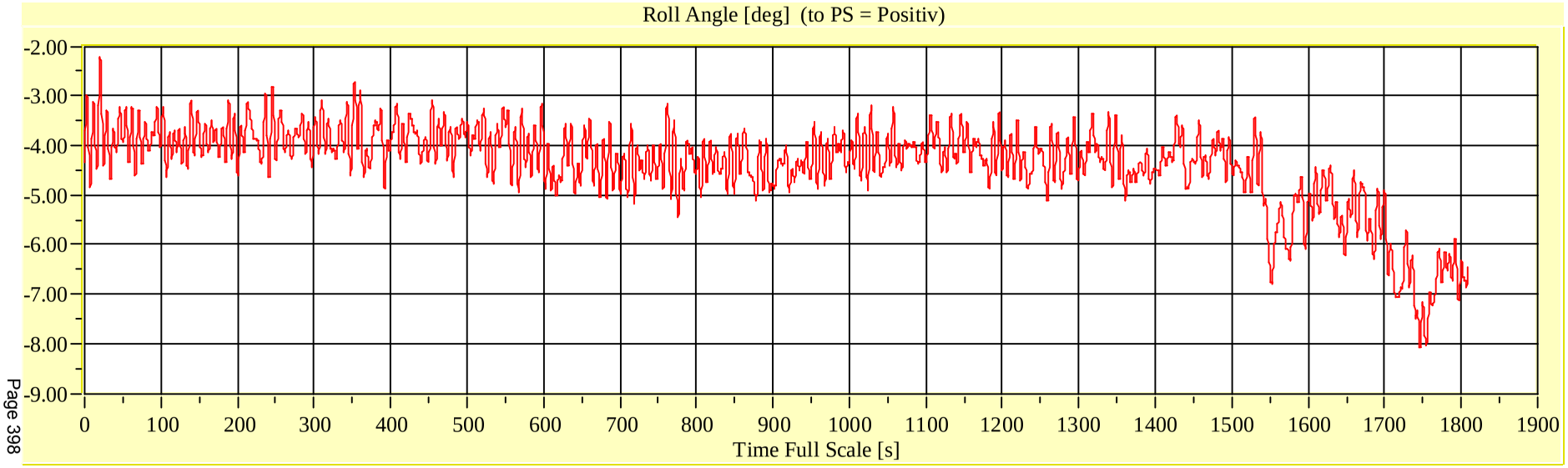


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-03	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

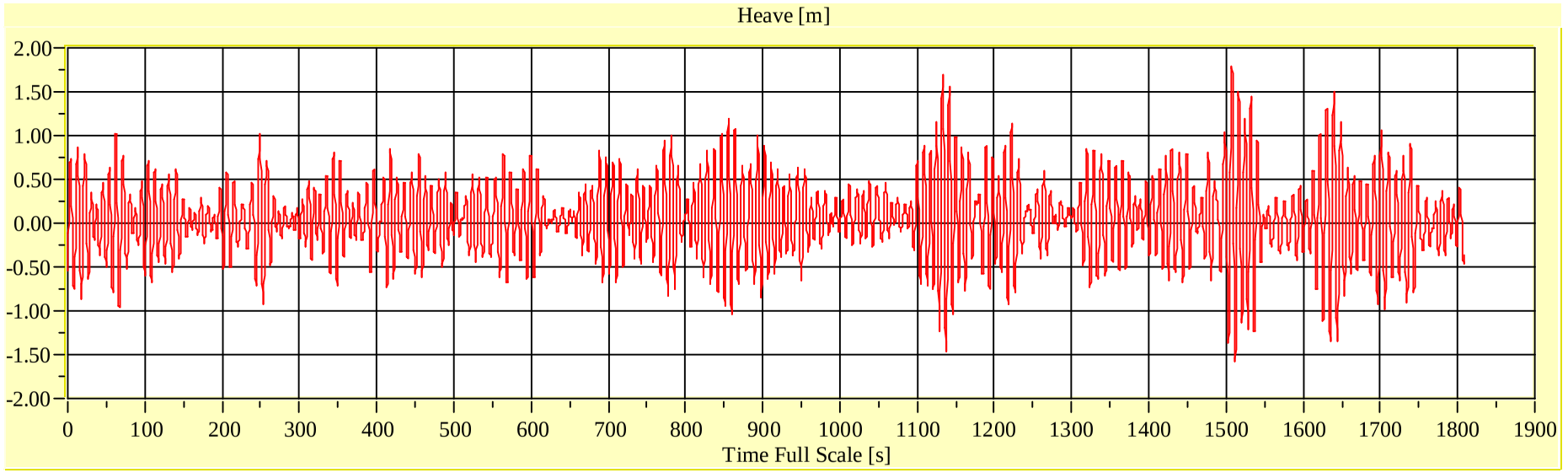


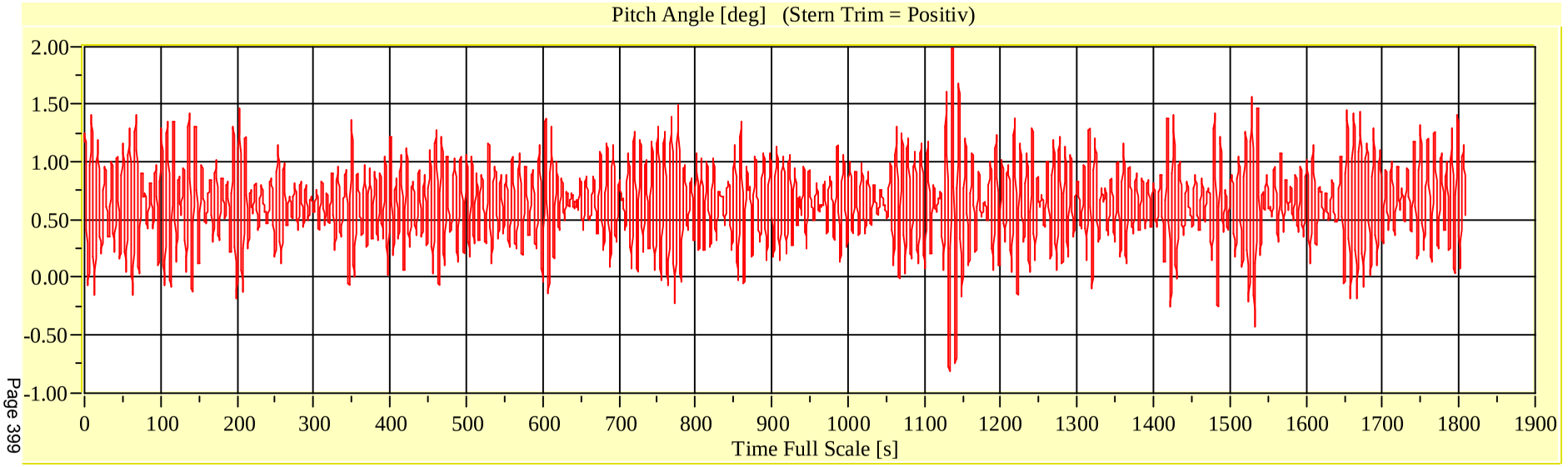


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-03	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

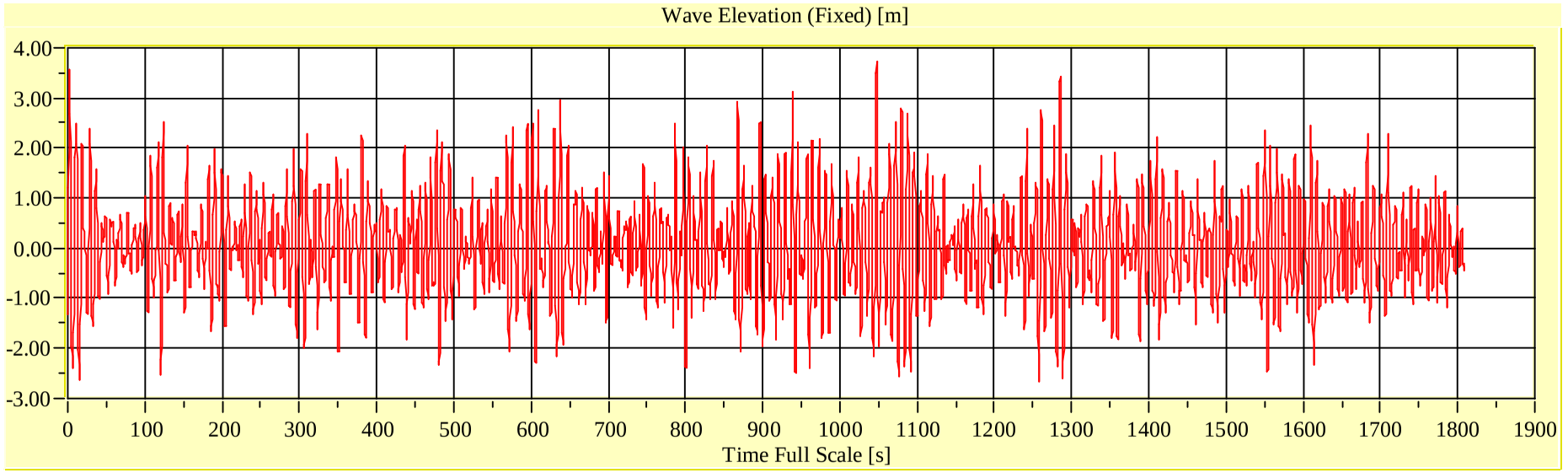


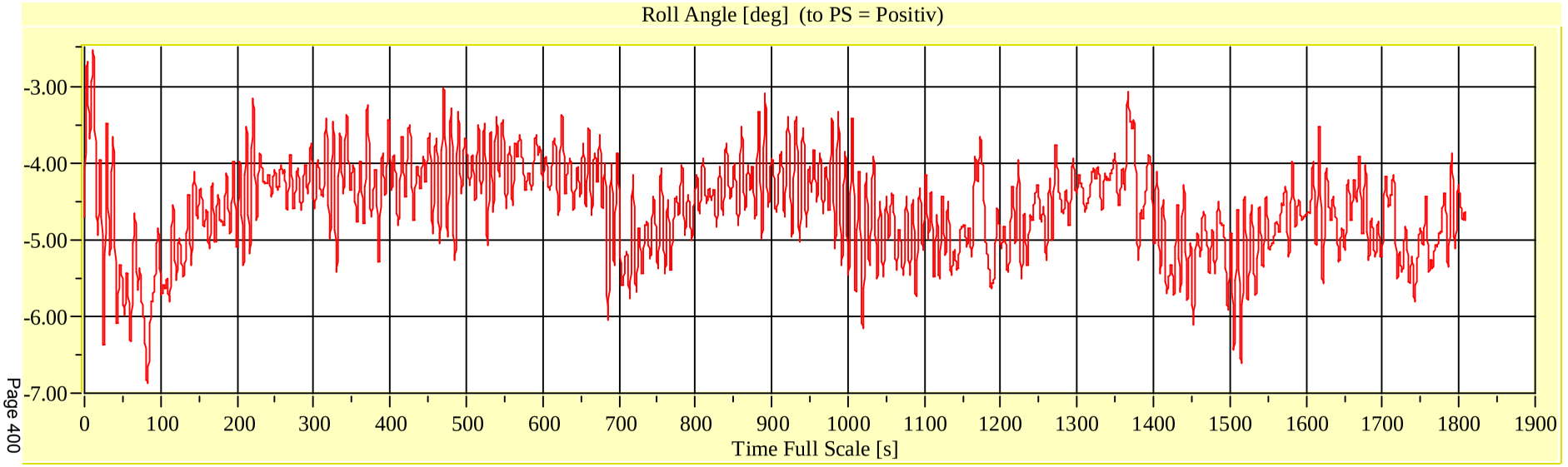


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-04	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



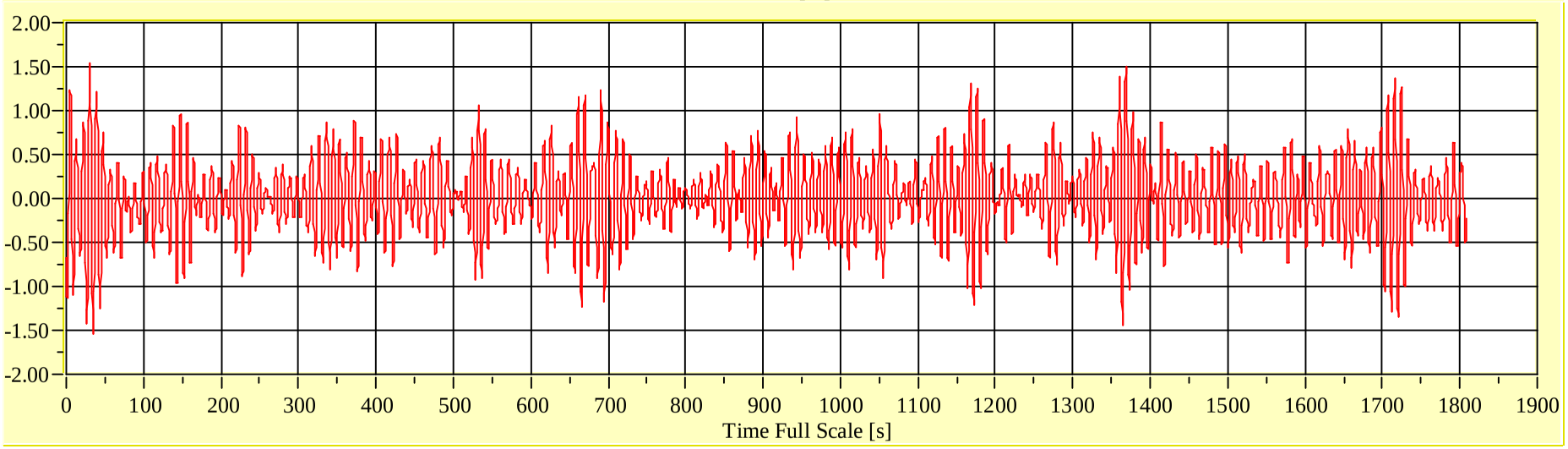


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

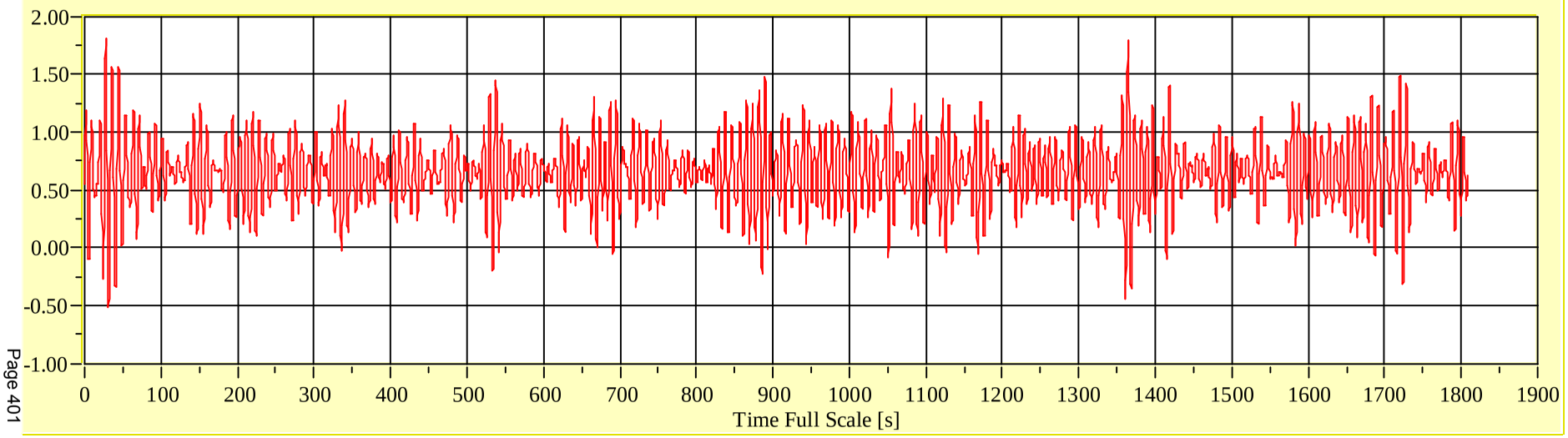
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-04	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



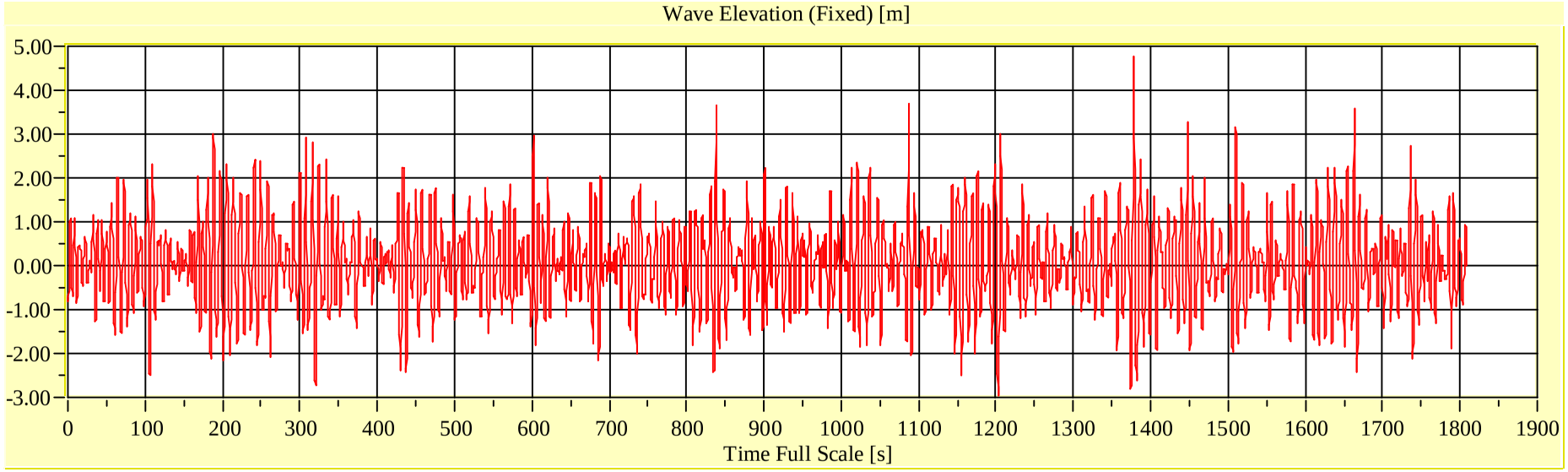
Pitch Angle [deg] (Stern Trim = Positiv)

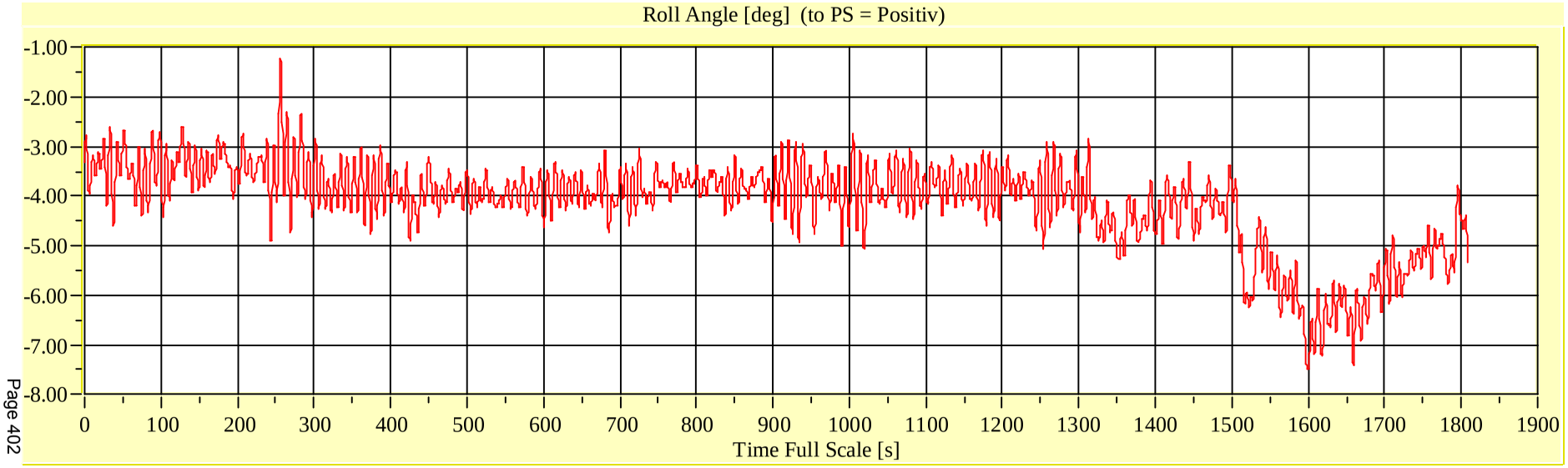


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-05	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

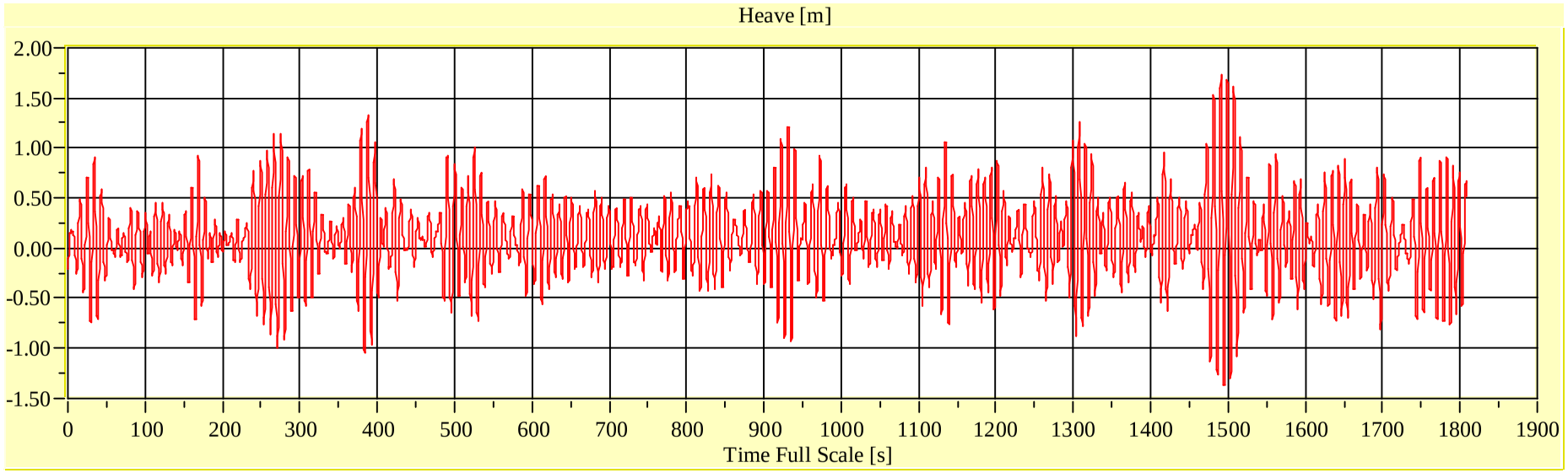


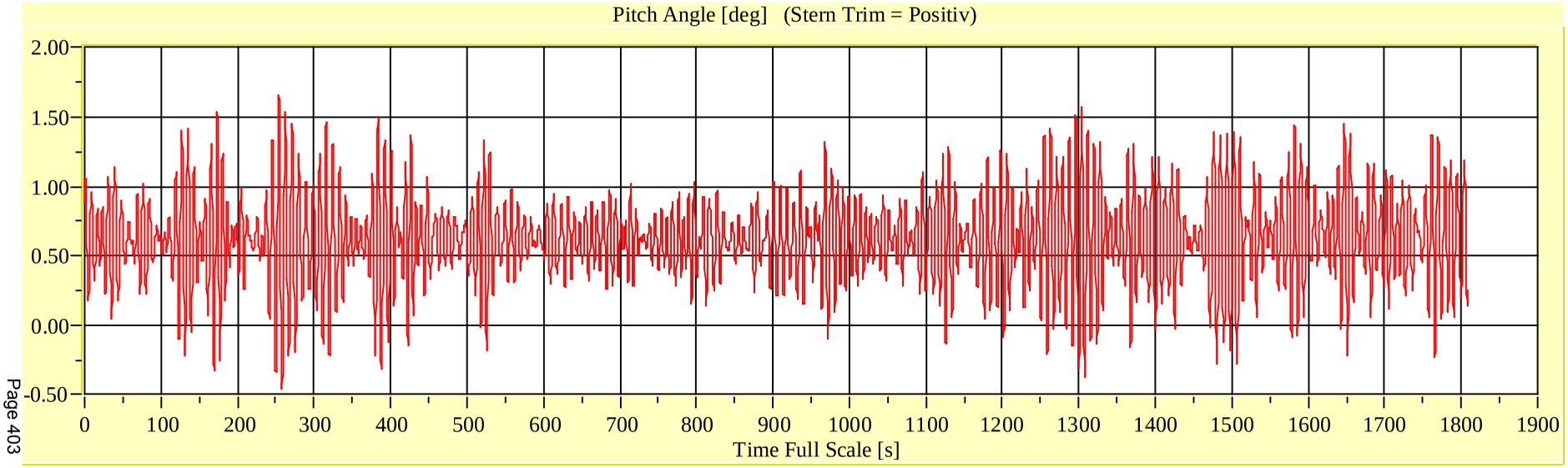


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-05	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

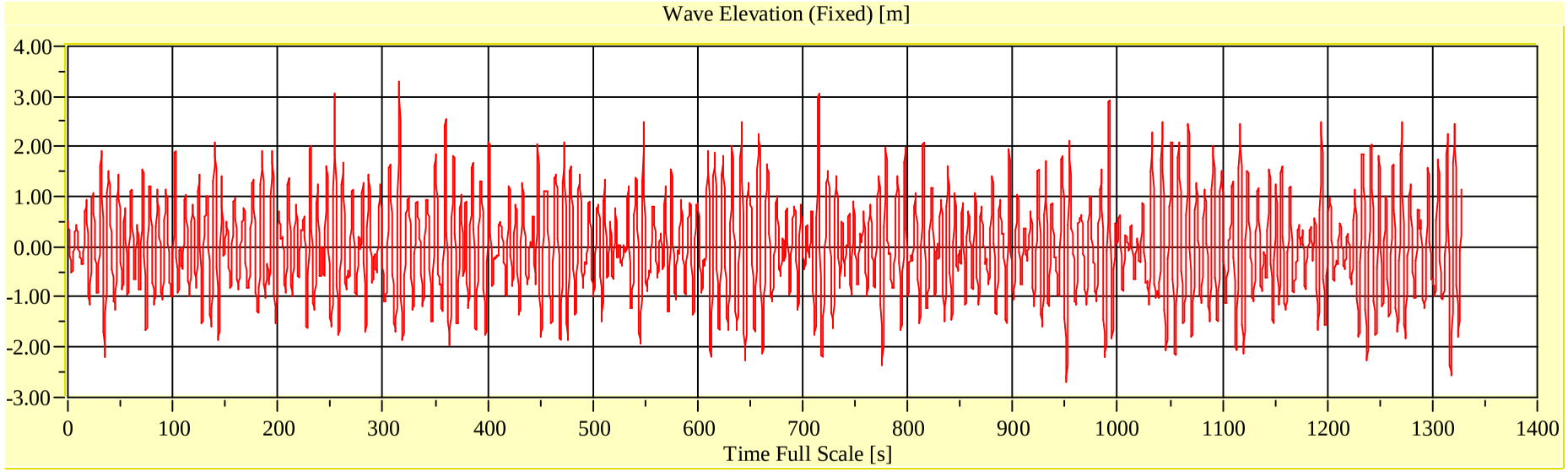


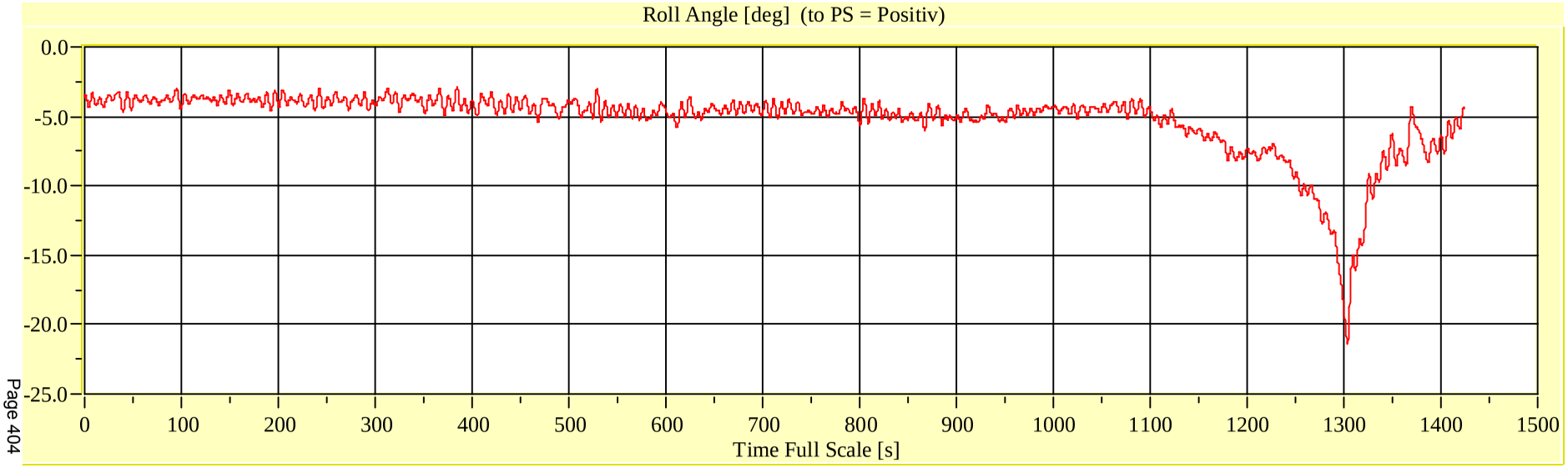


Date: 15.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-06	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



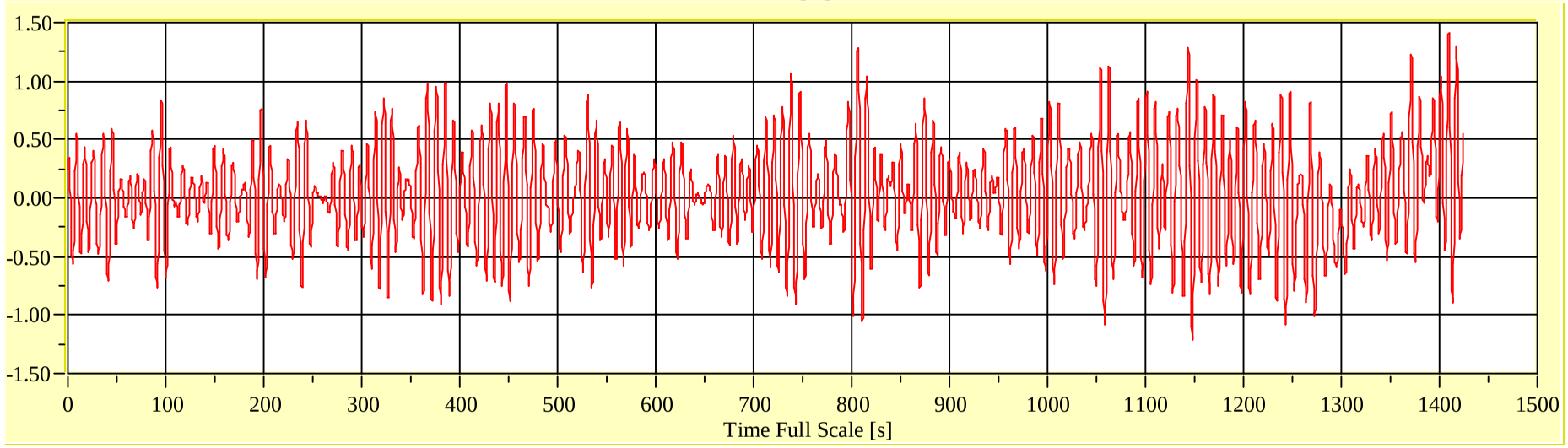


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

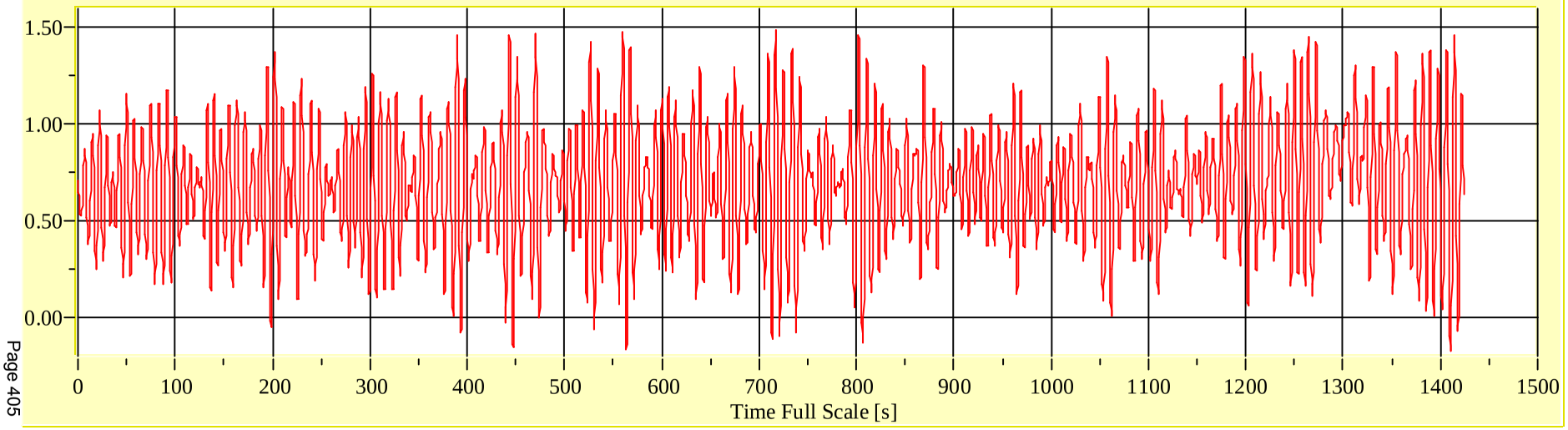
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-06	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



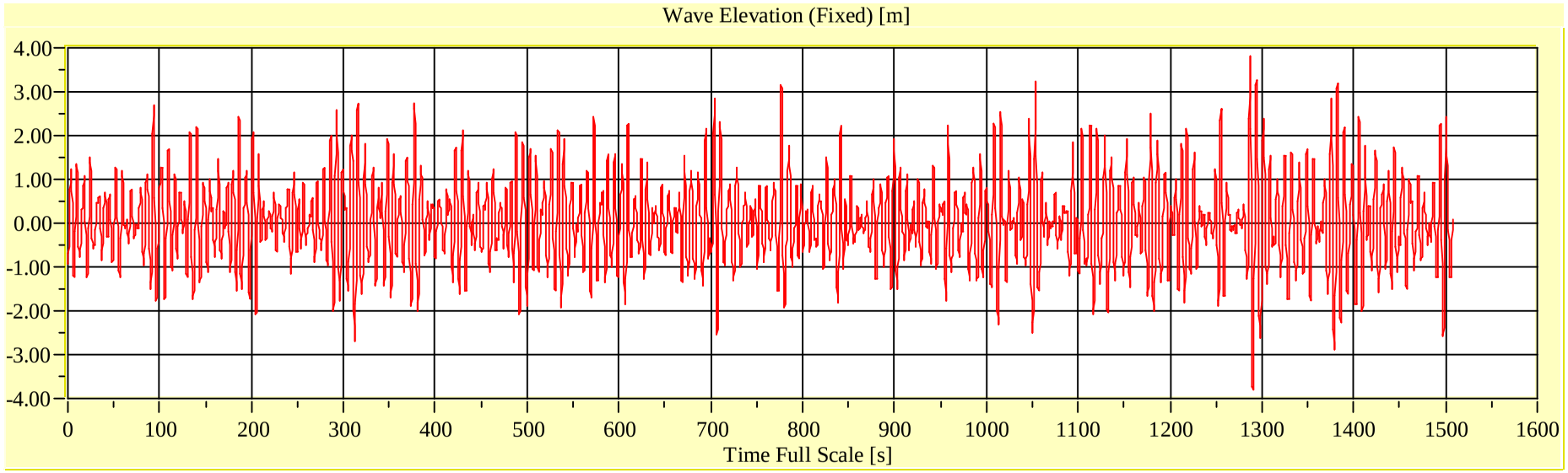
Pitch Angle [deg] (Stern Trim = Positiv)

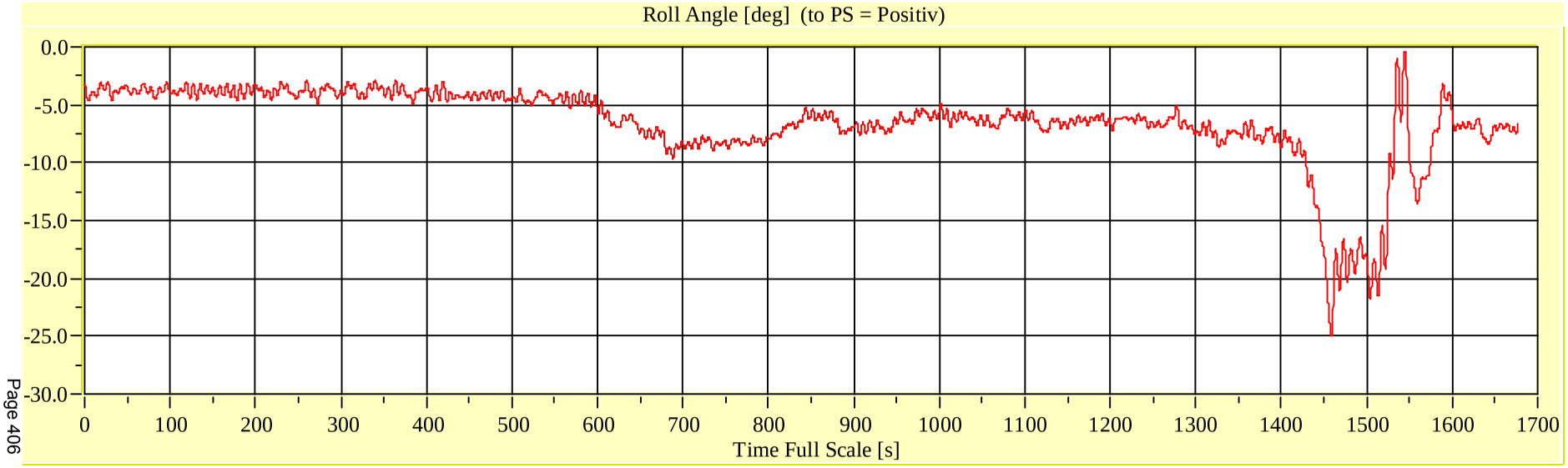


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-07	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

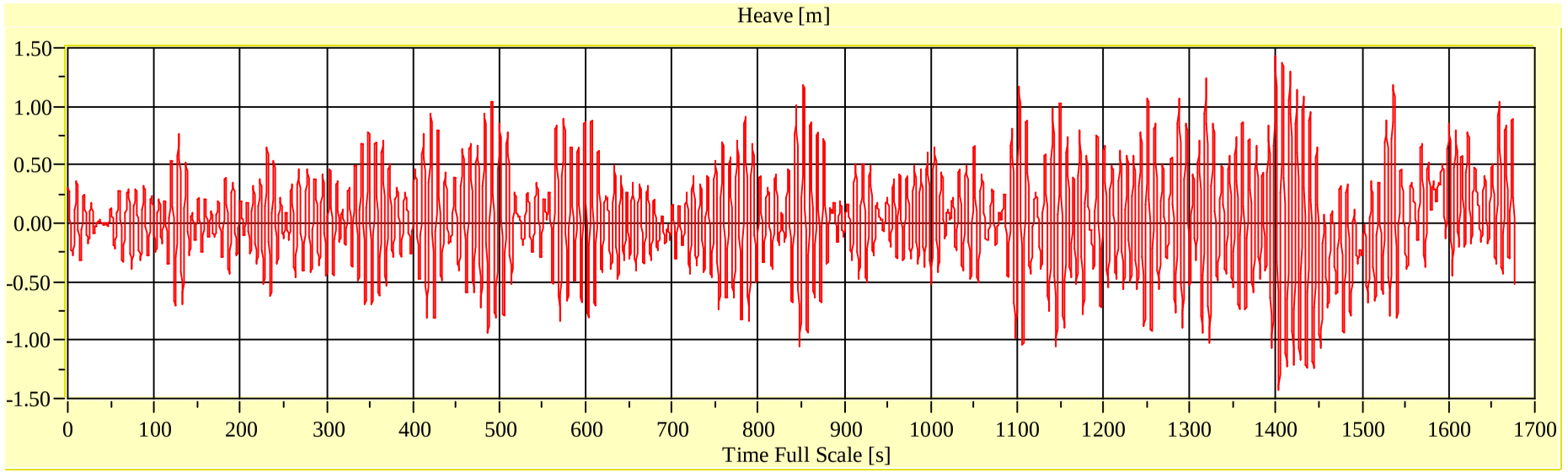


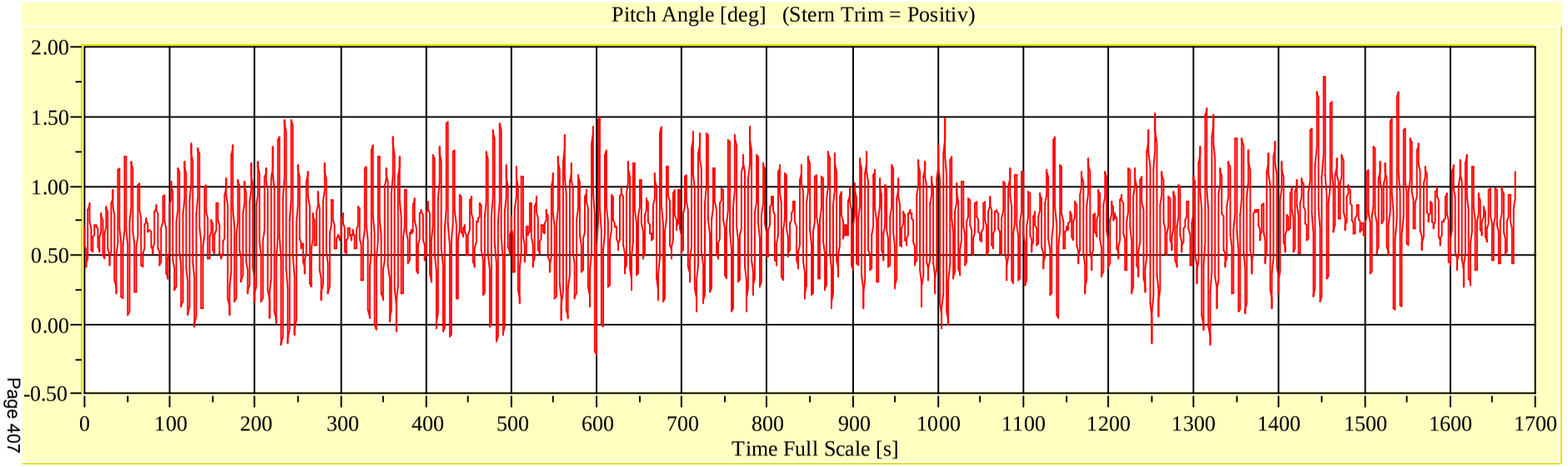


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-07	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

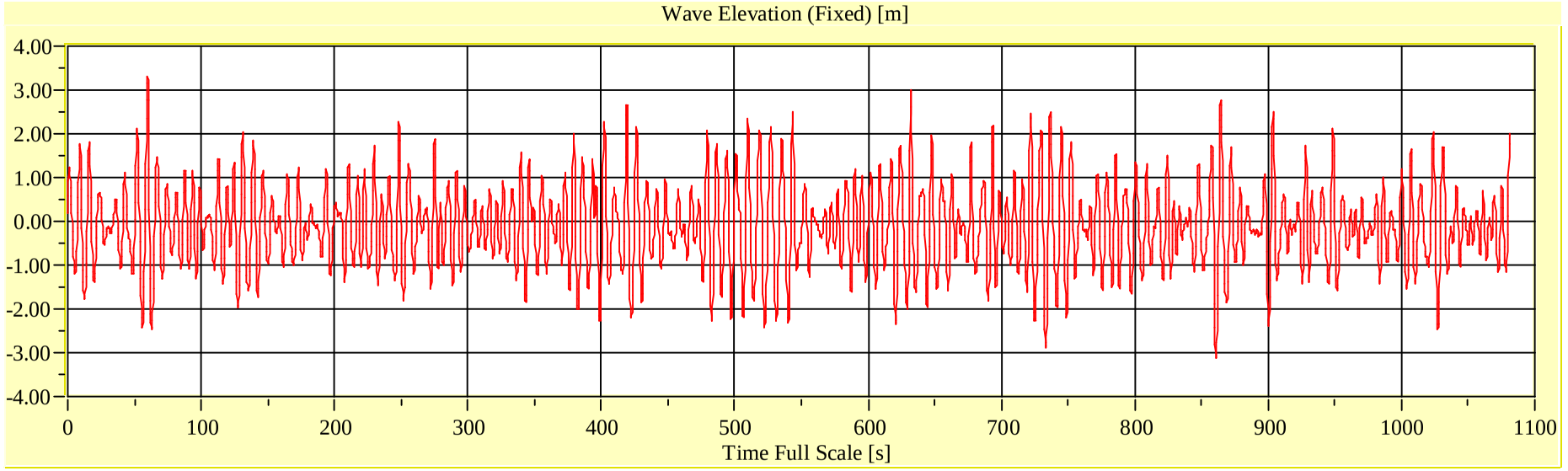


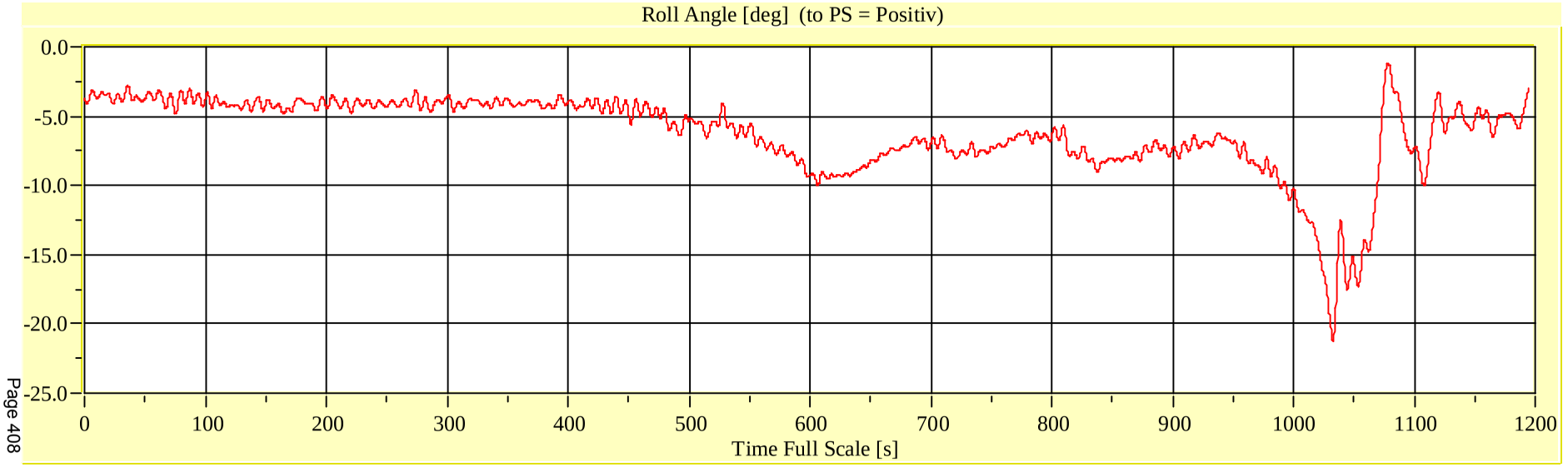


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-08	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

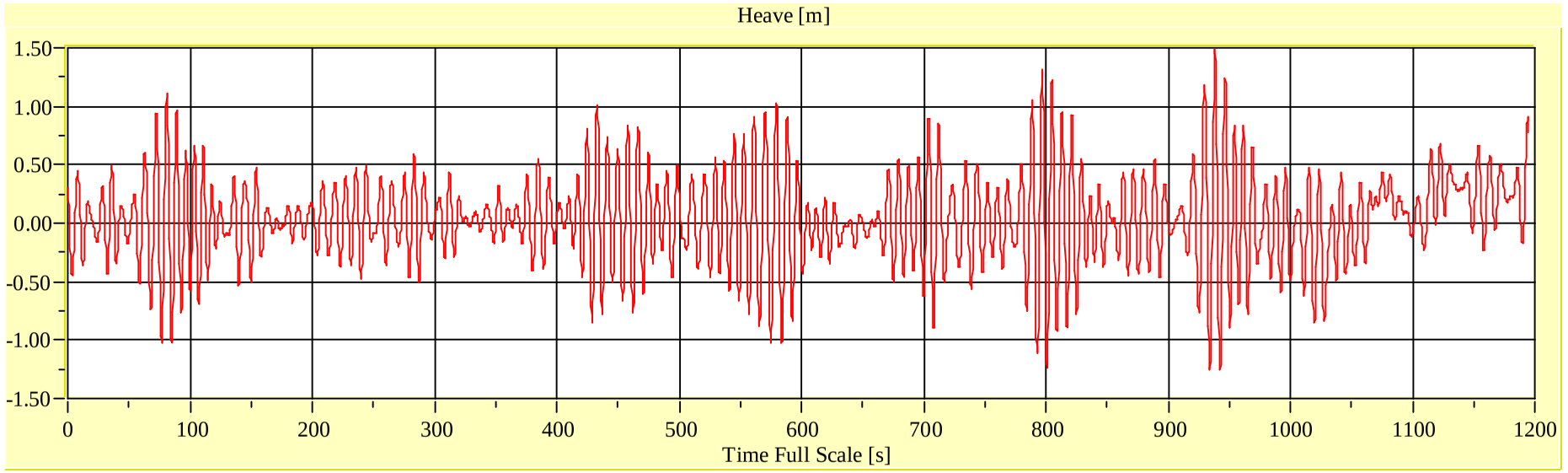


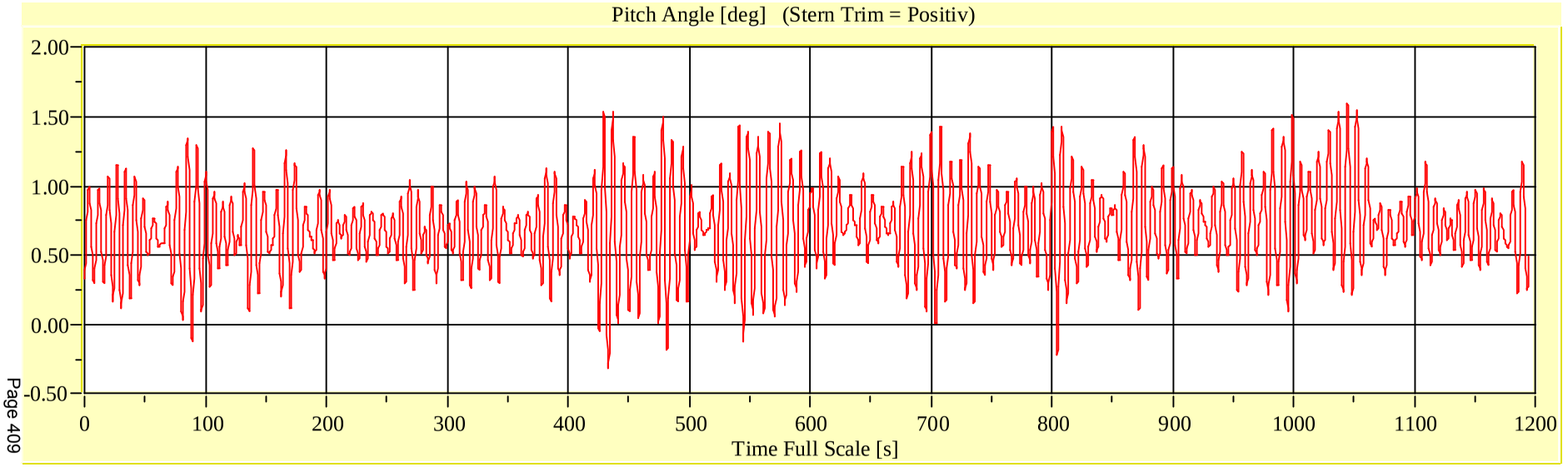


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-08	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

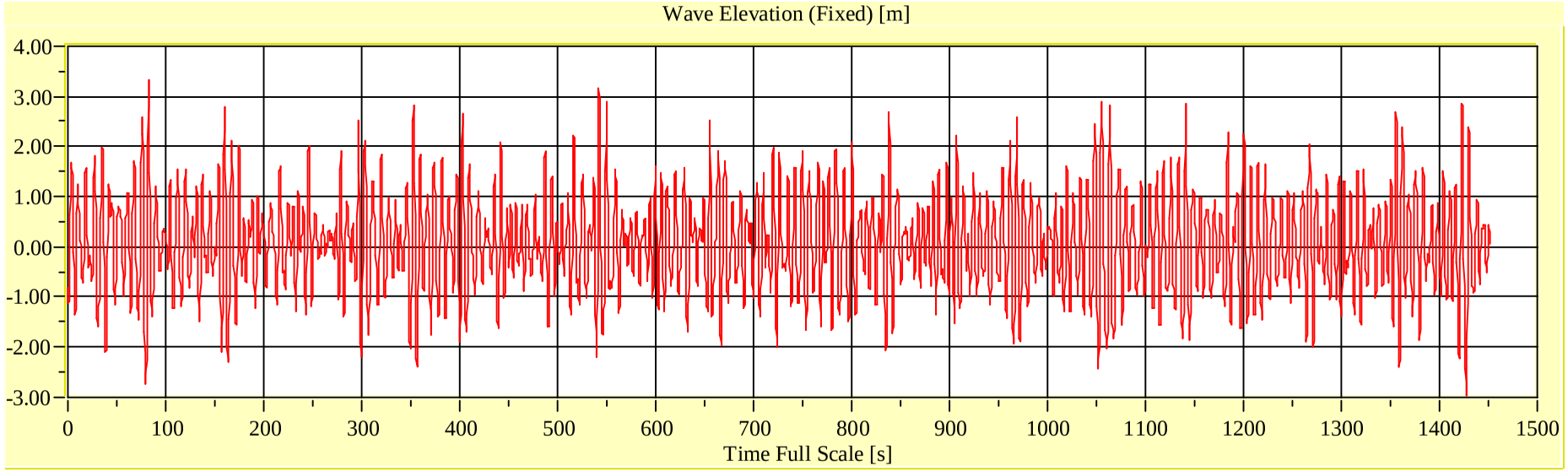


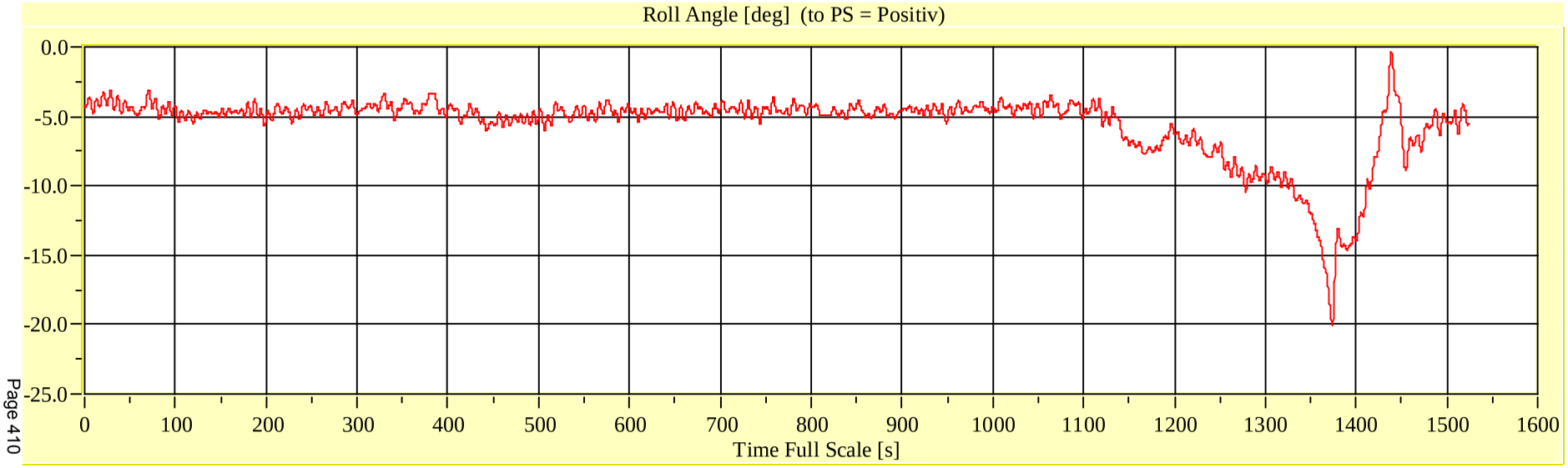


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-09	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

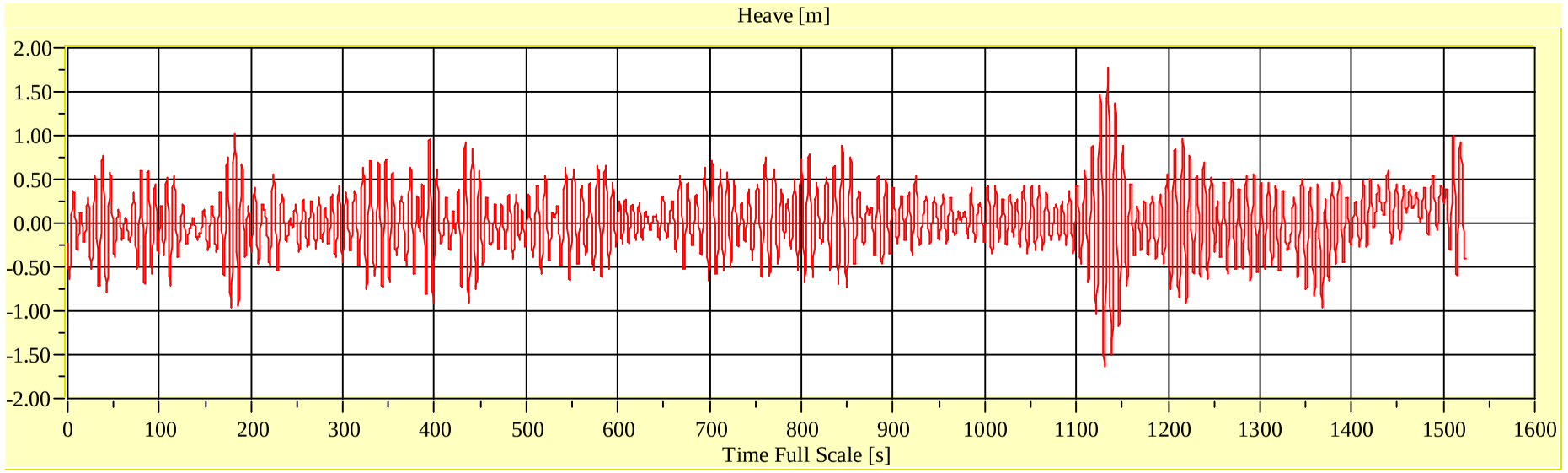


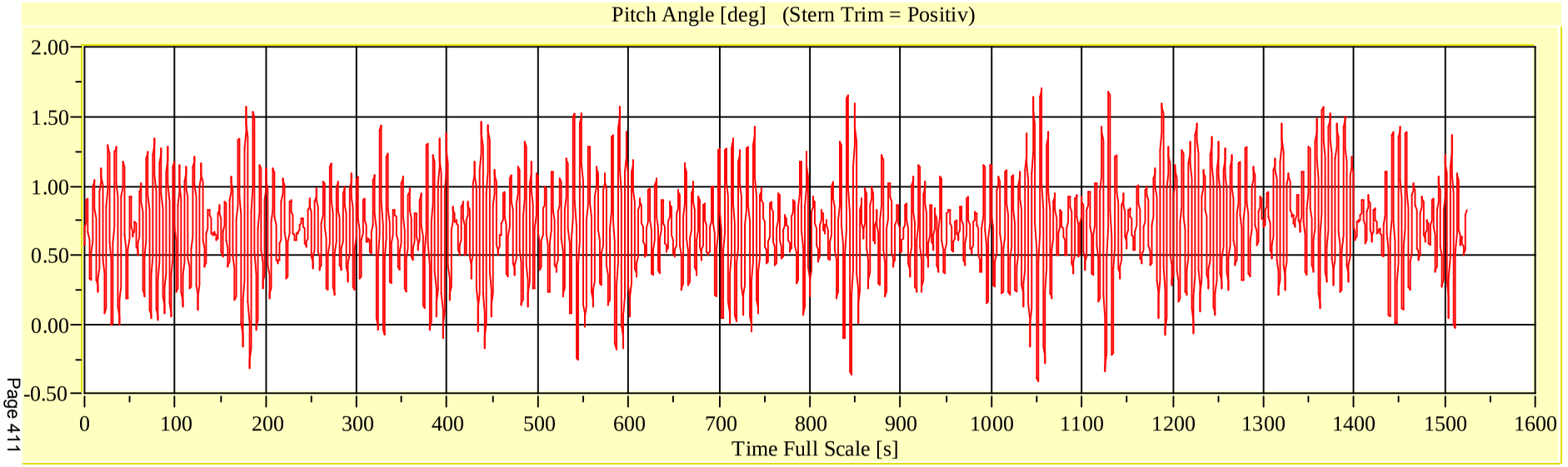


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-09	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

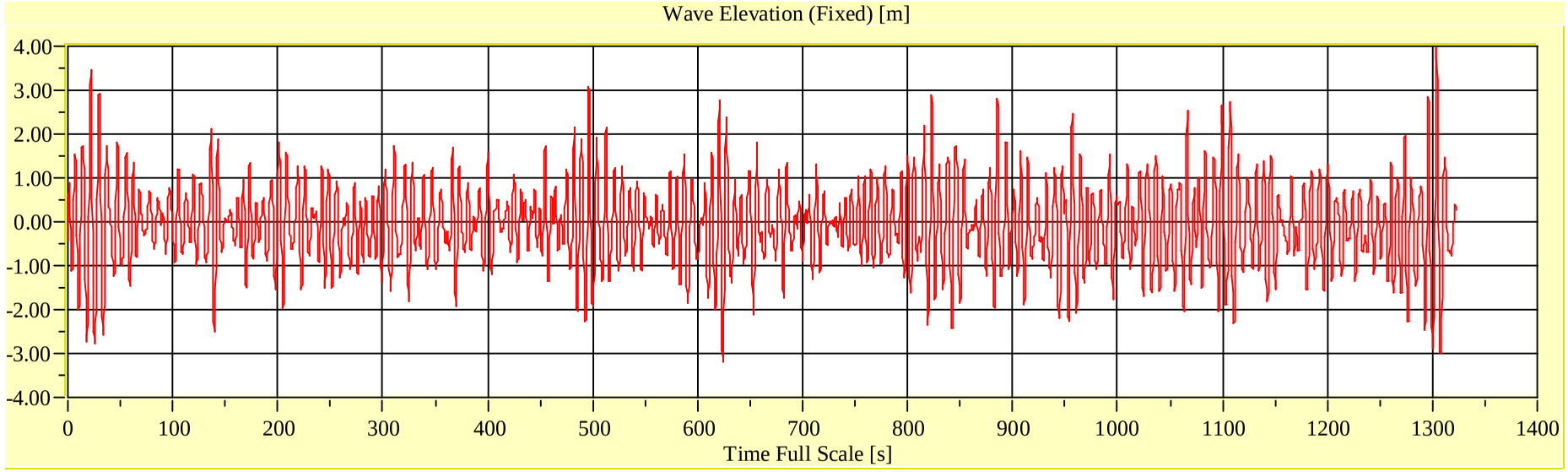


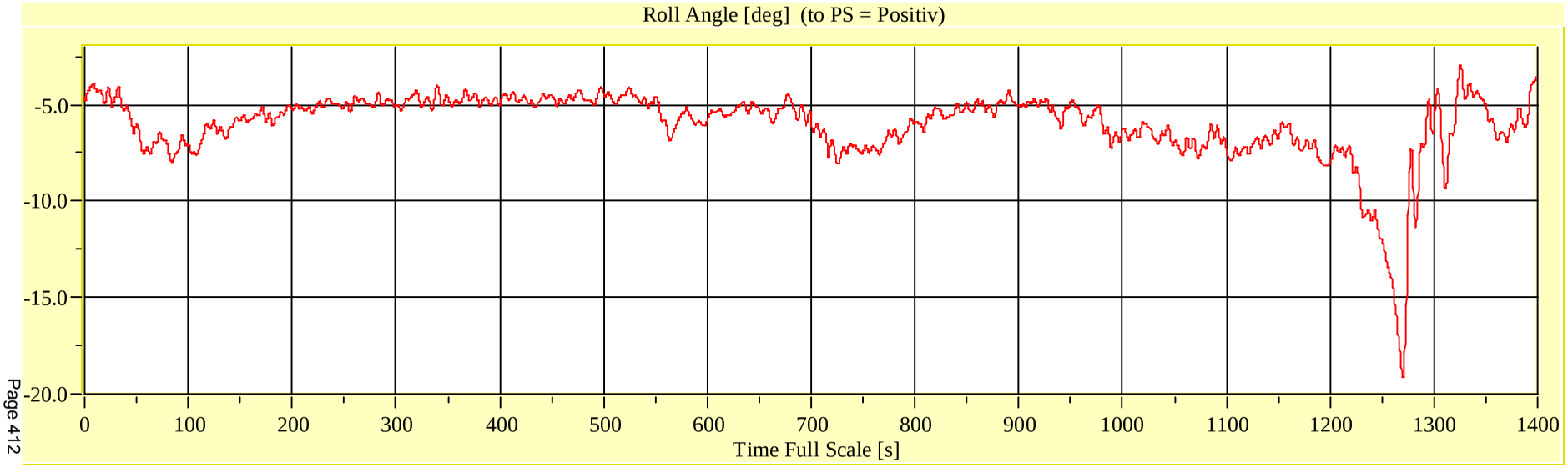


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-10	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

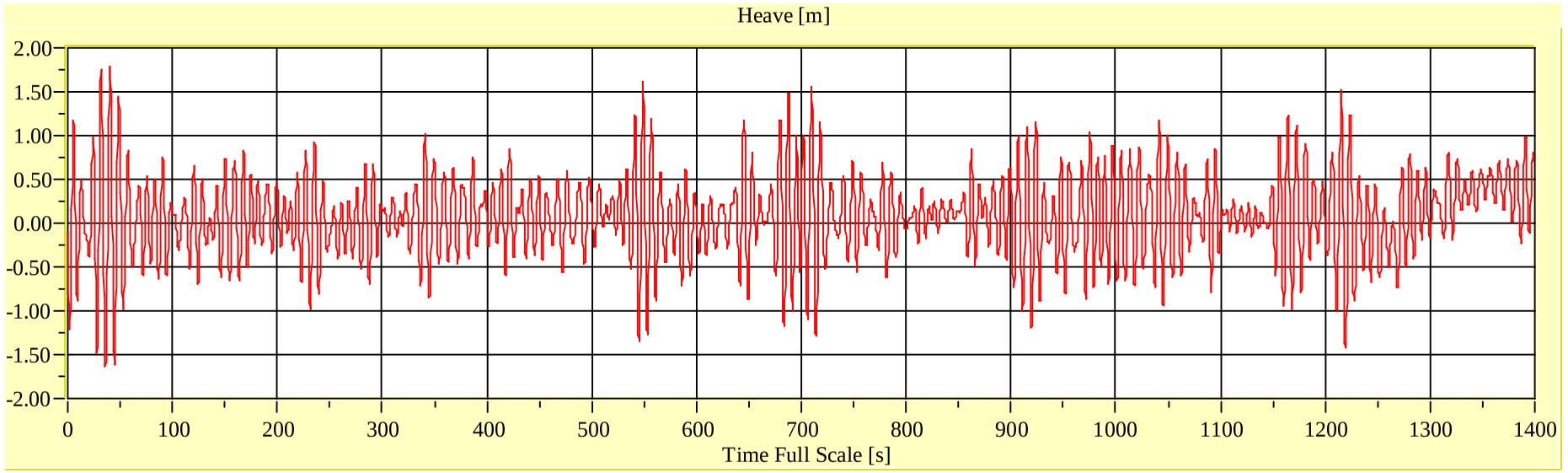


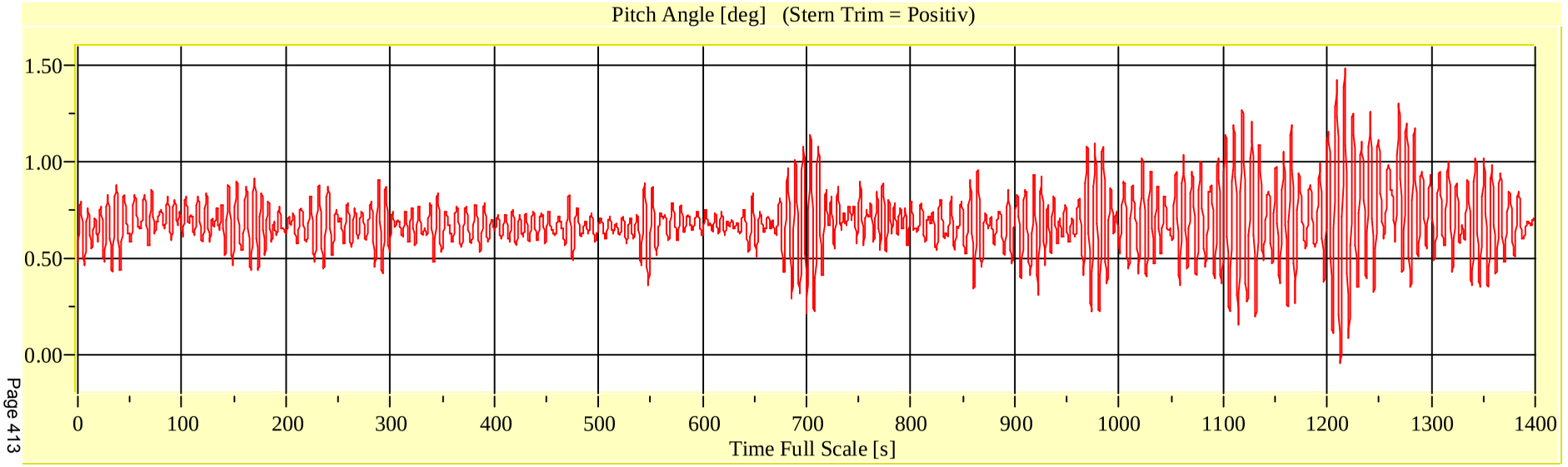


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29716-10	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



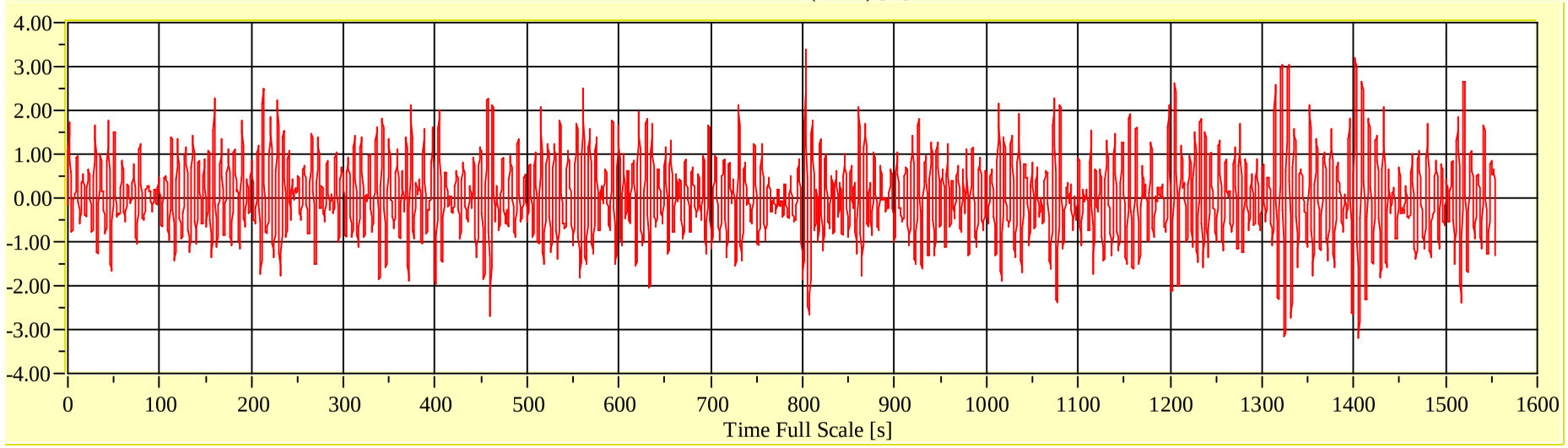


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

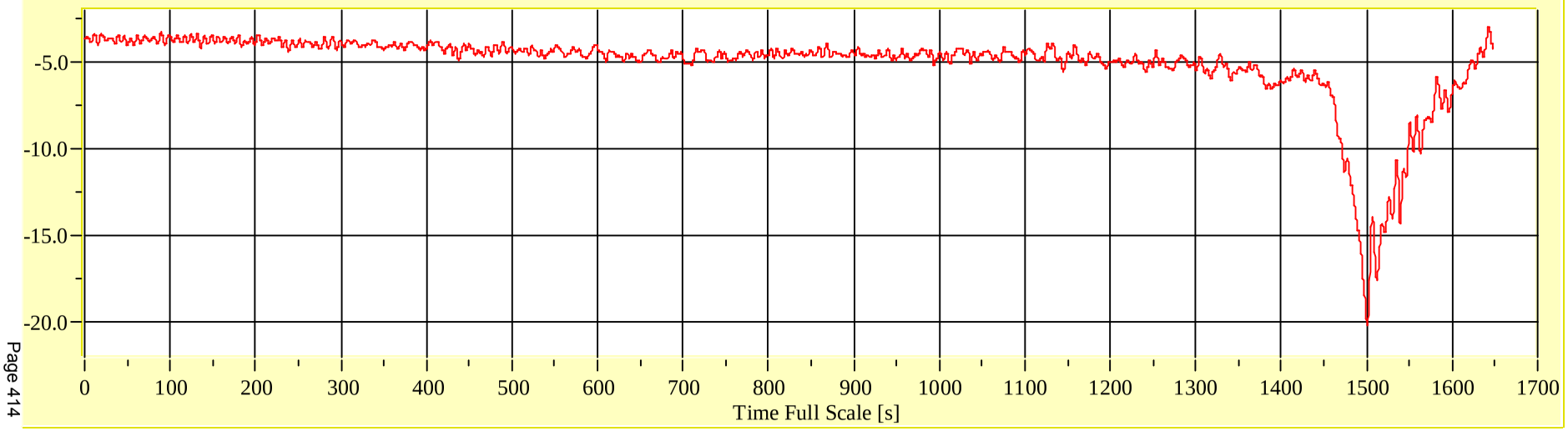
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

Wave Elevation (Fixed) [m]



Roll Angle [deg] (to PS = Positiv)

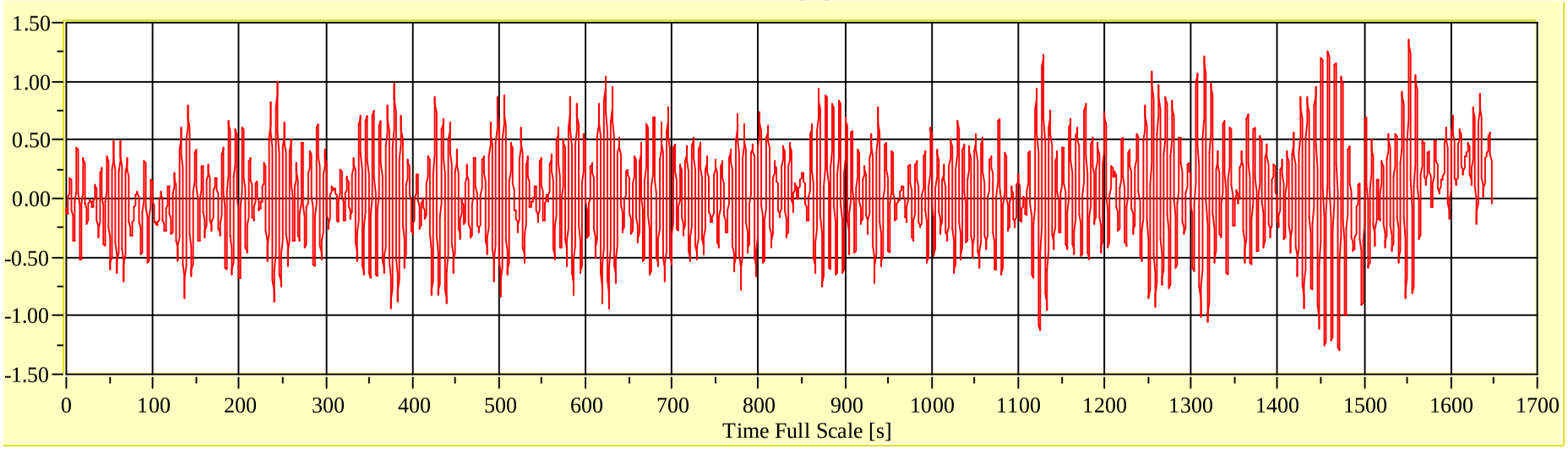


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

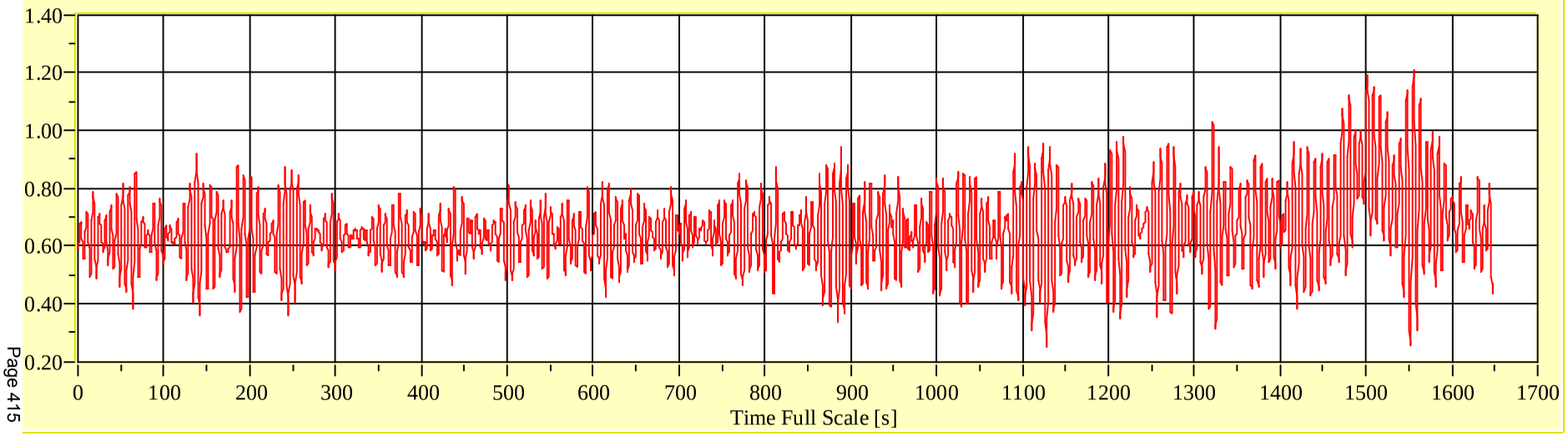
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

Heave [m]



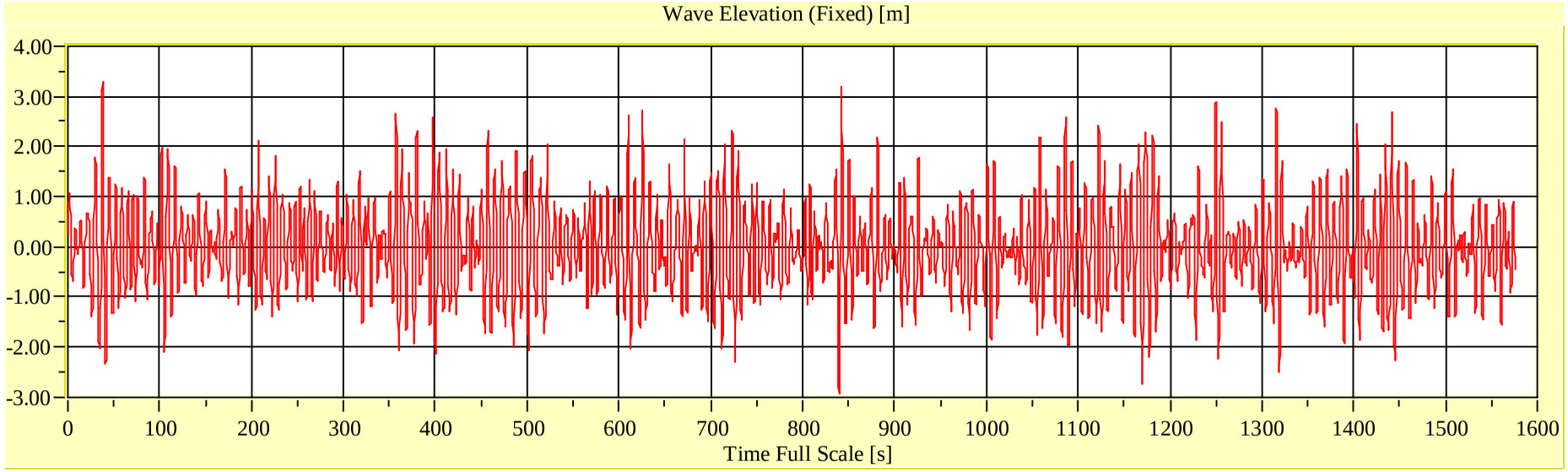
Pitch Angle [deg] (Stern Trim = Positiv)

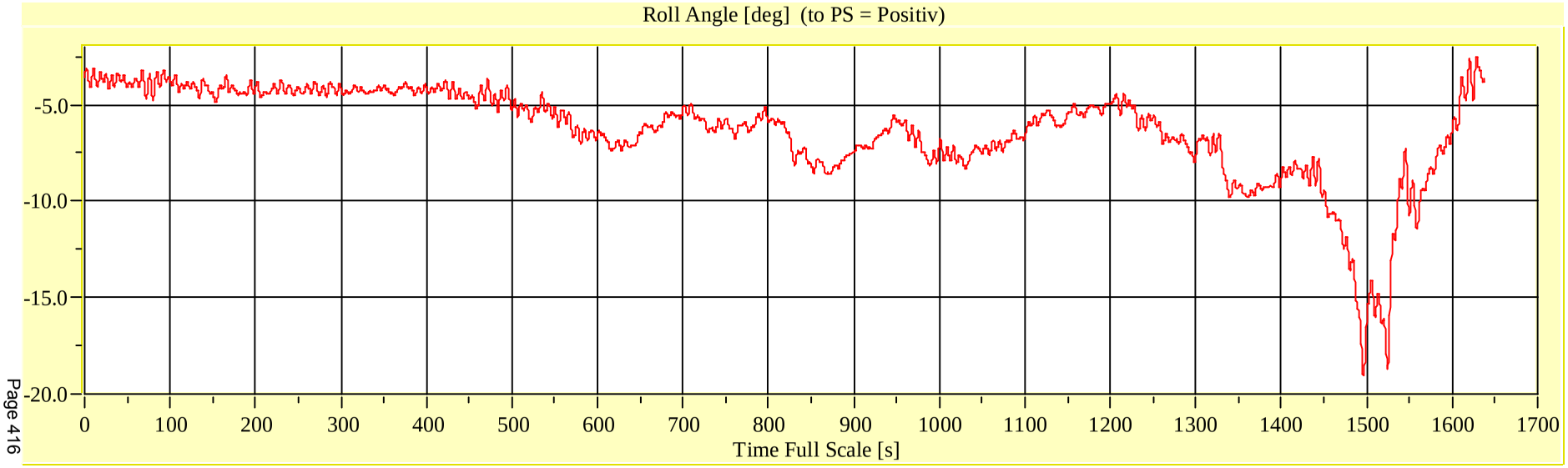


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

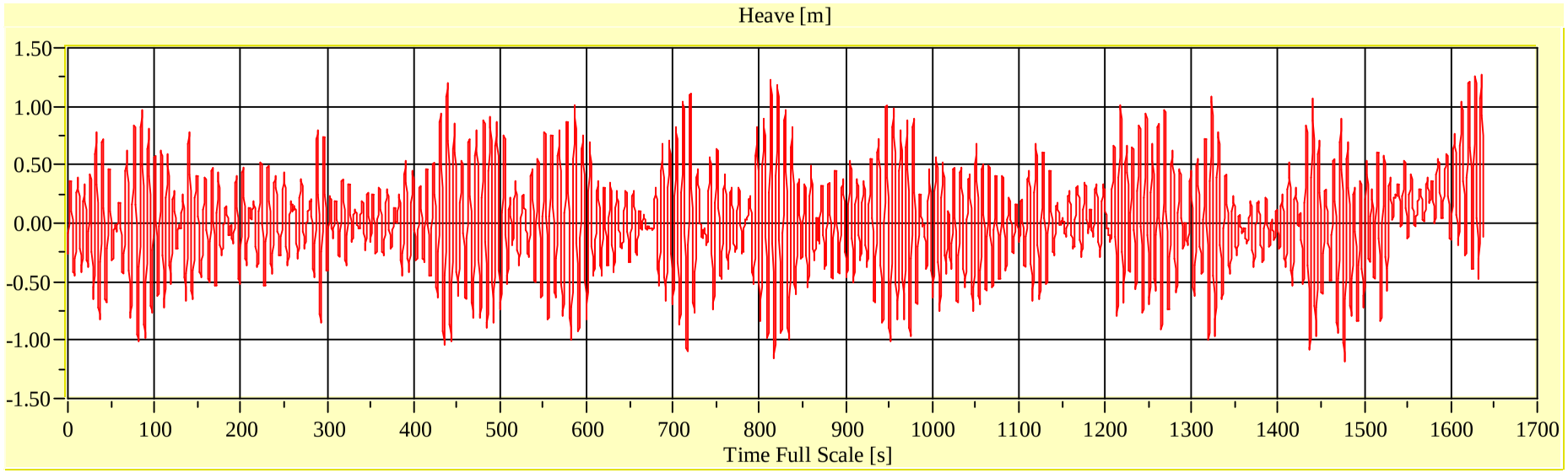


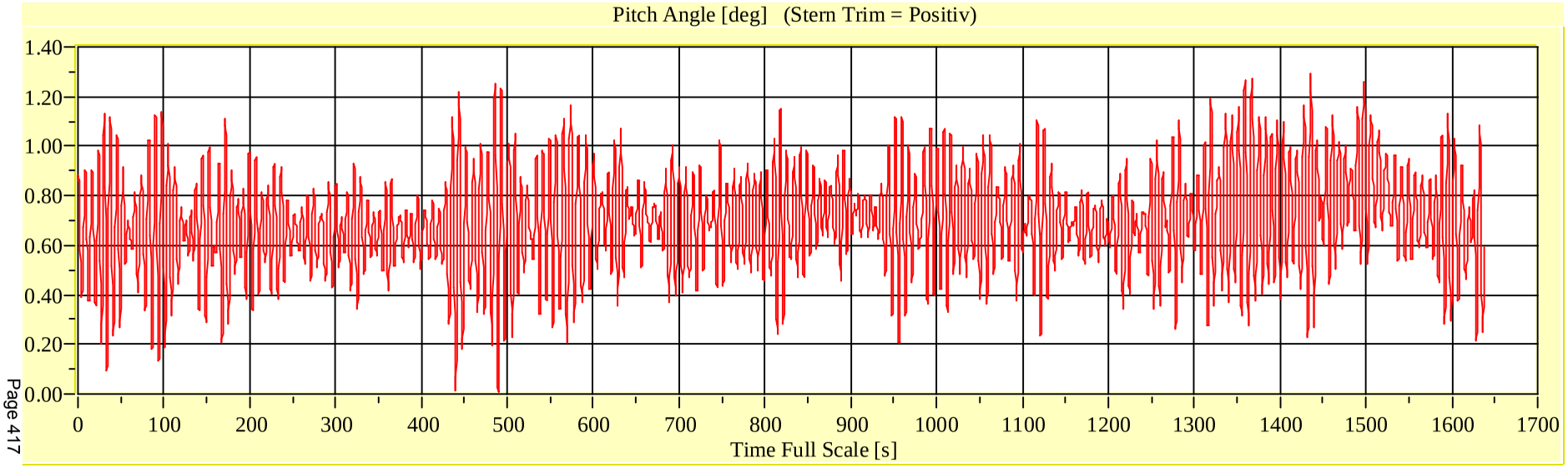


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

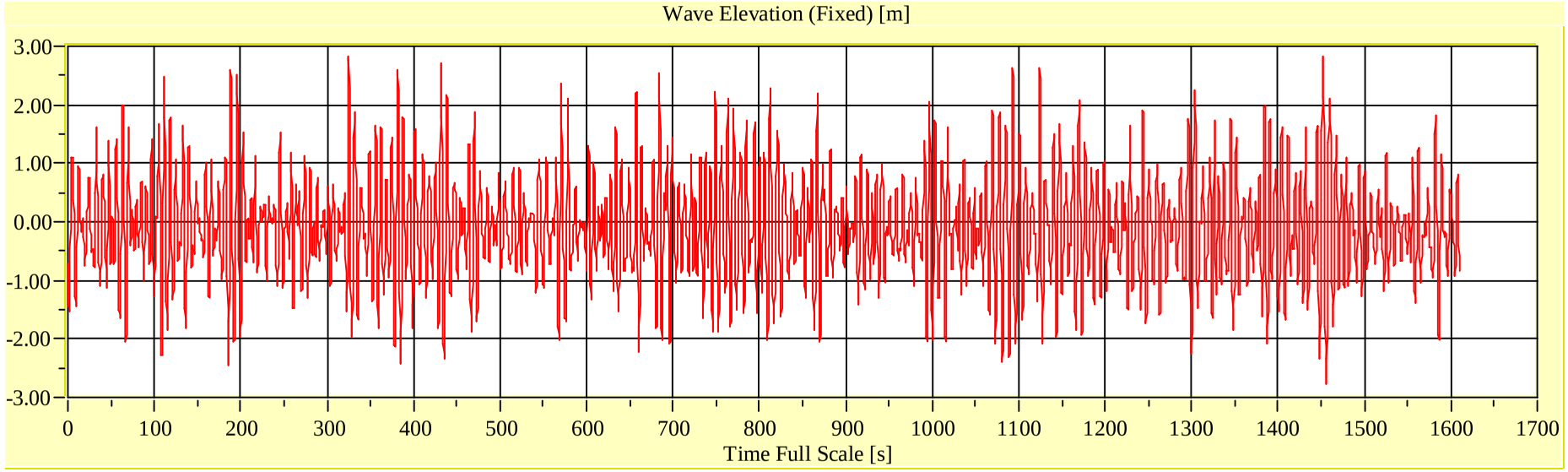


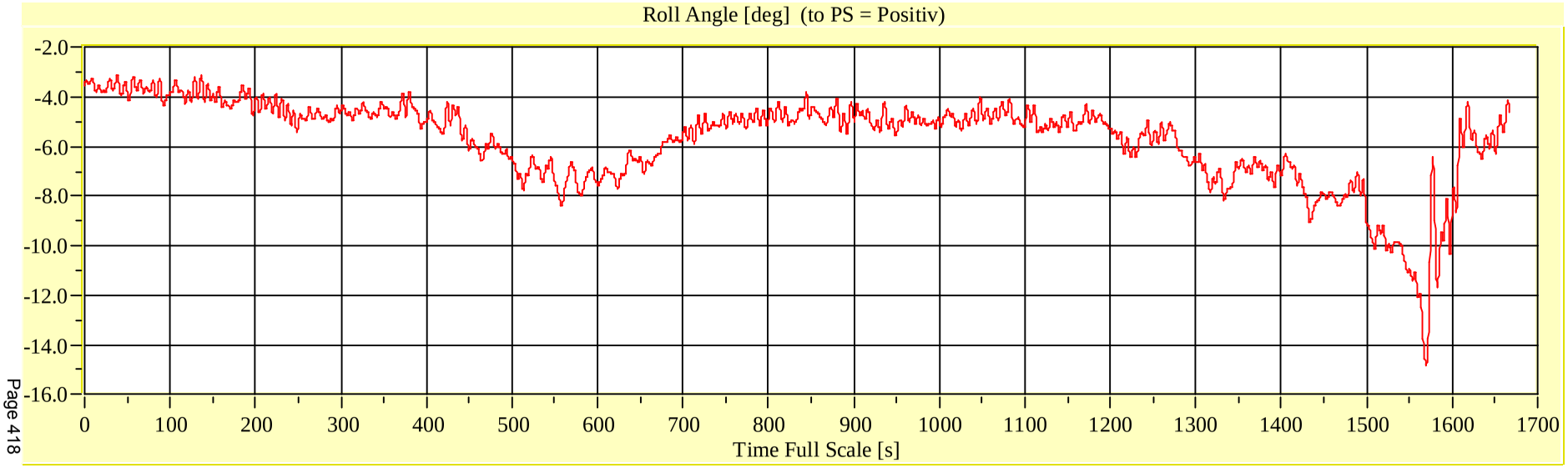


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

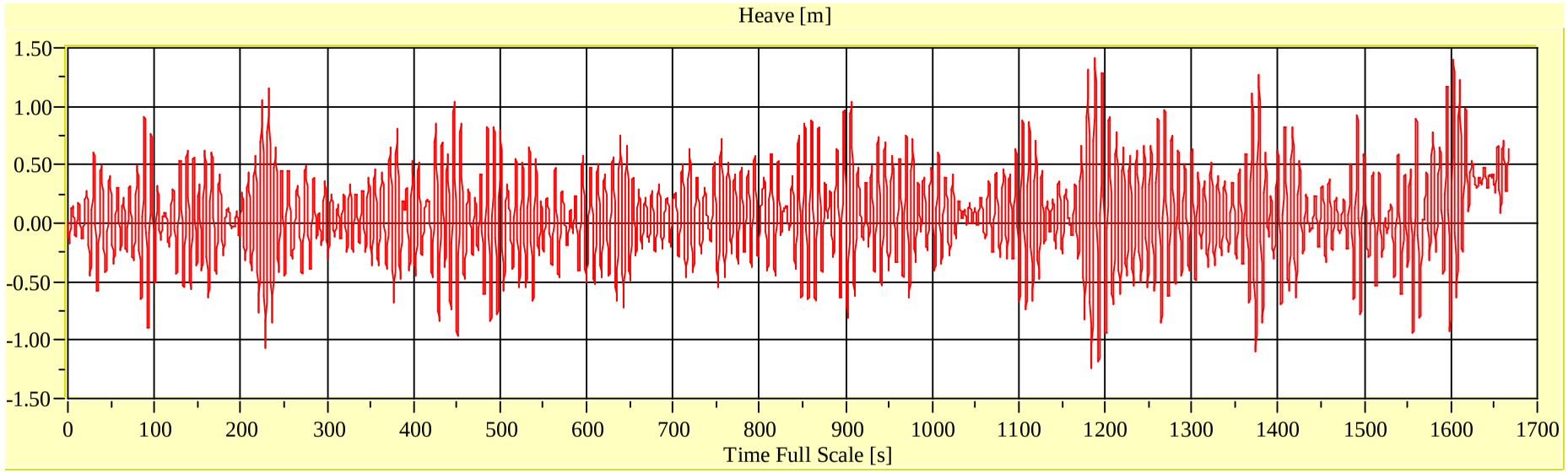


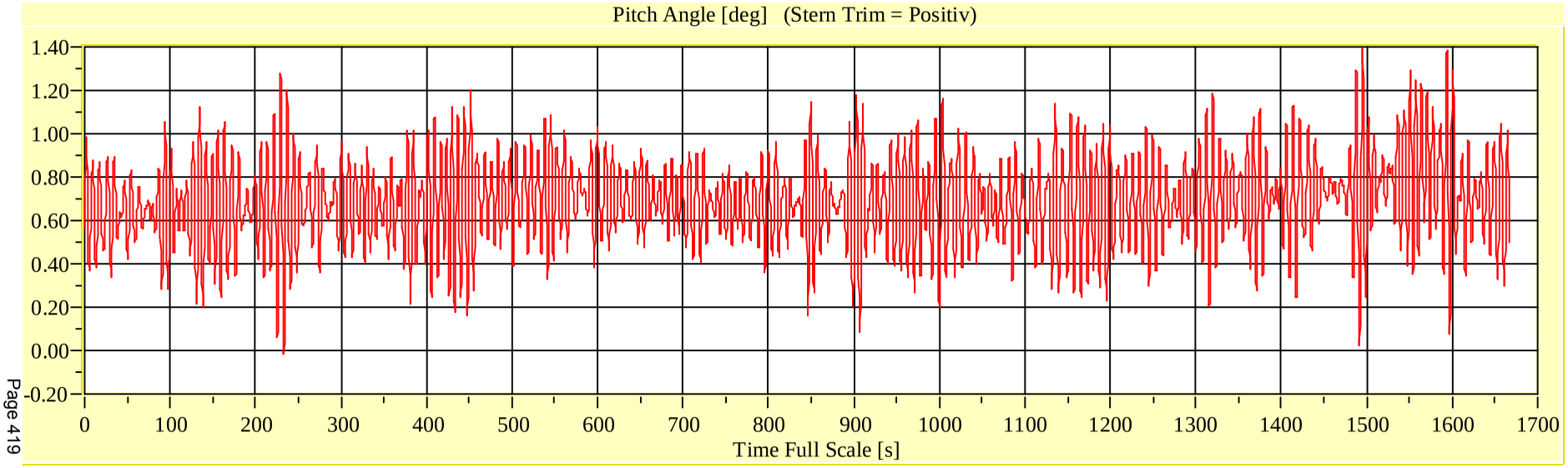


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

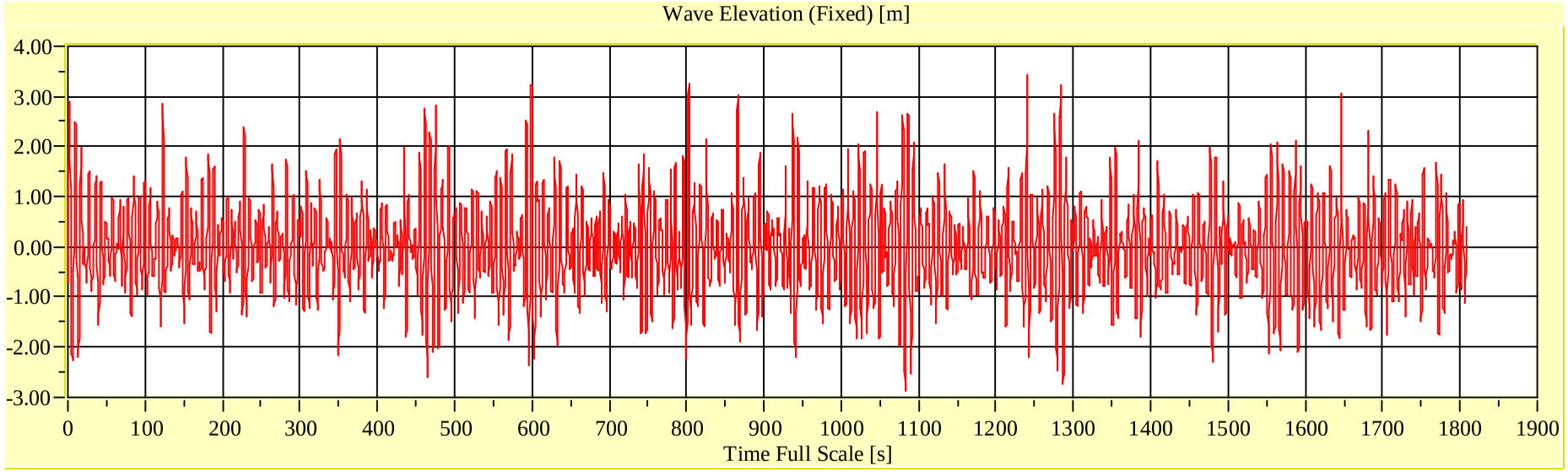


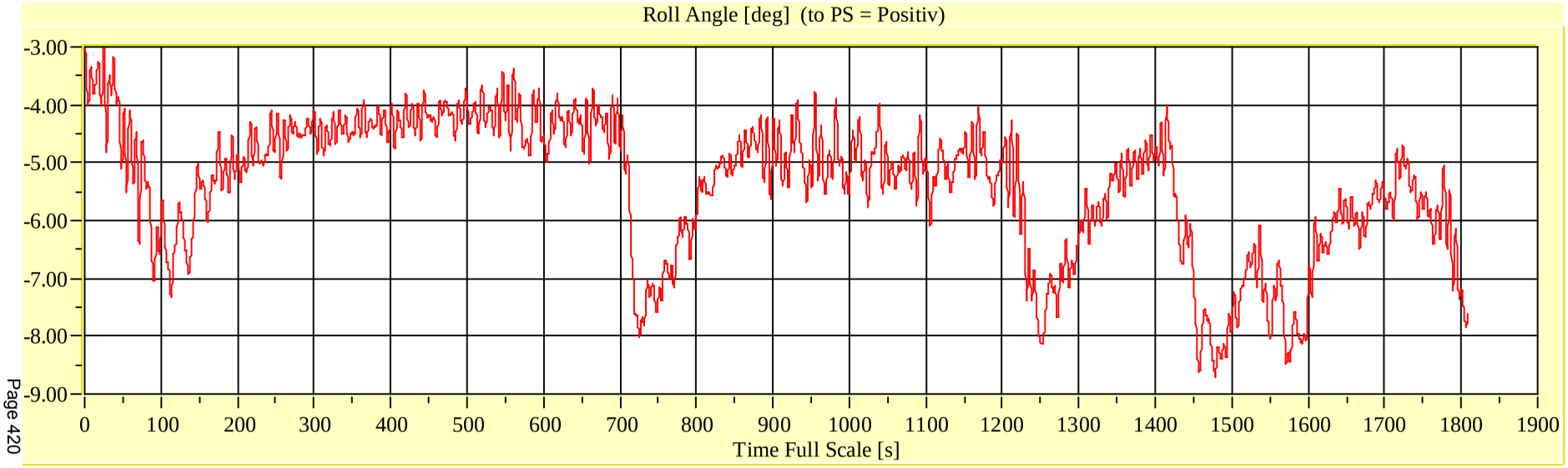


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

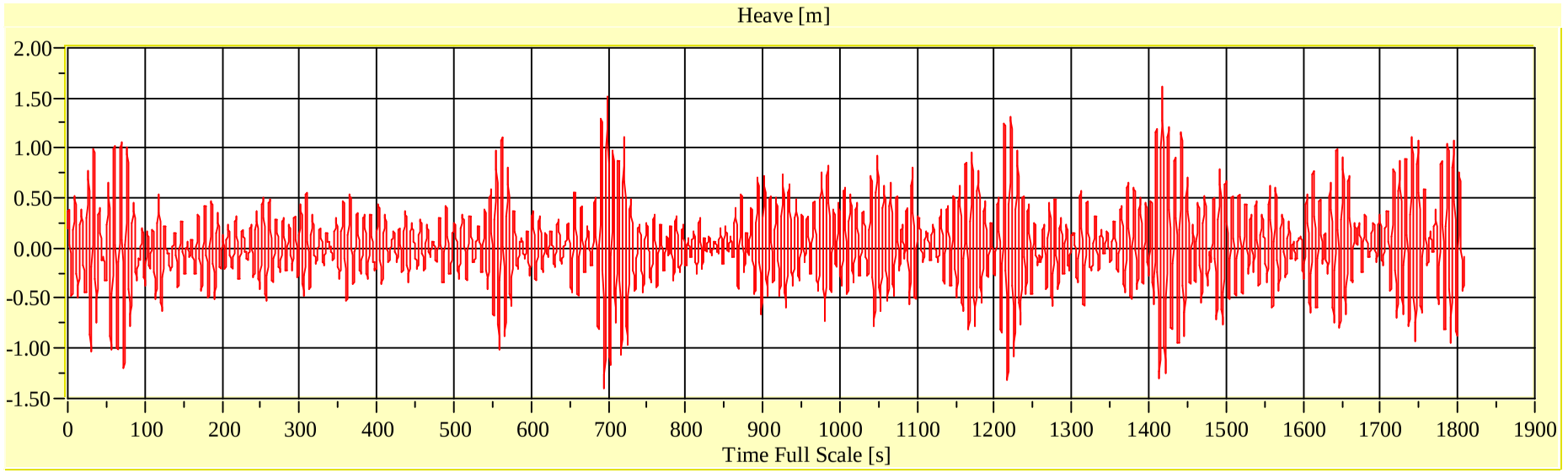


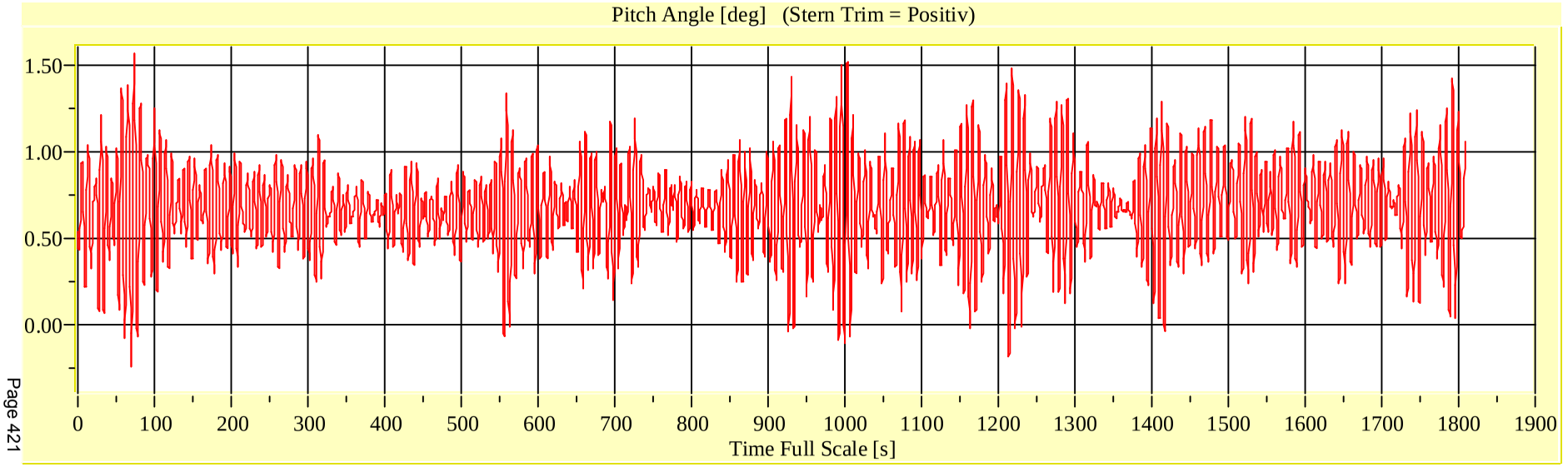


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

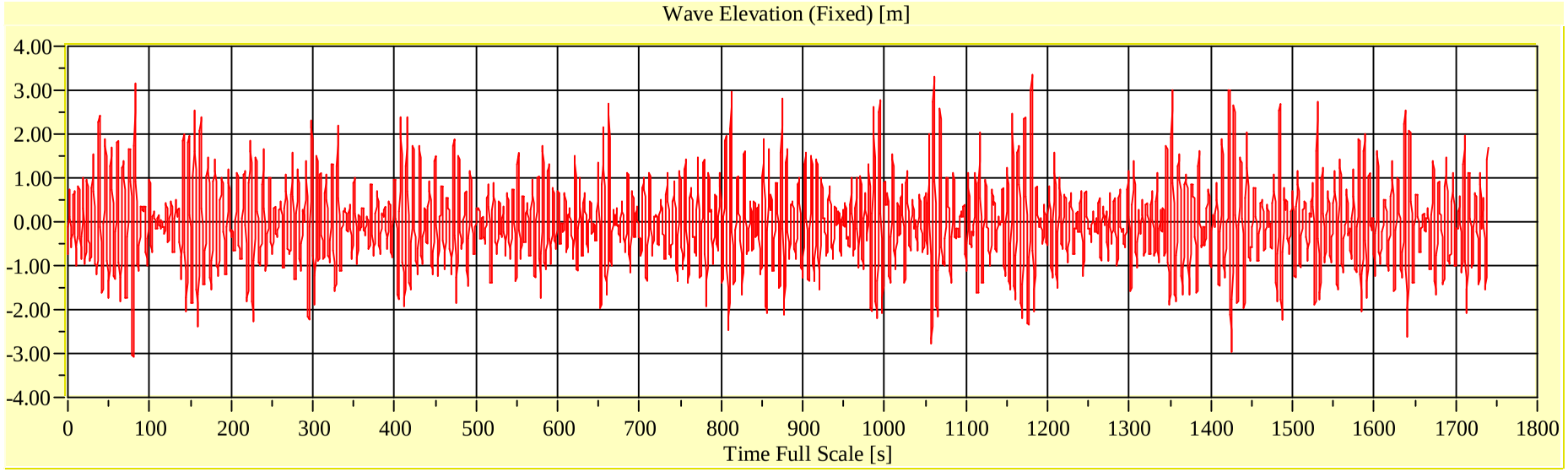


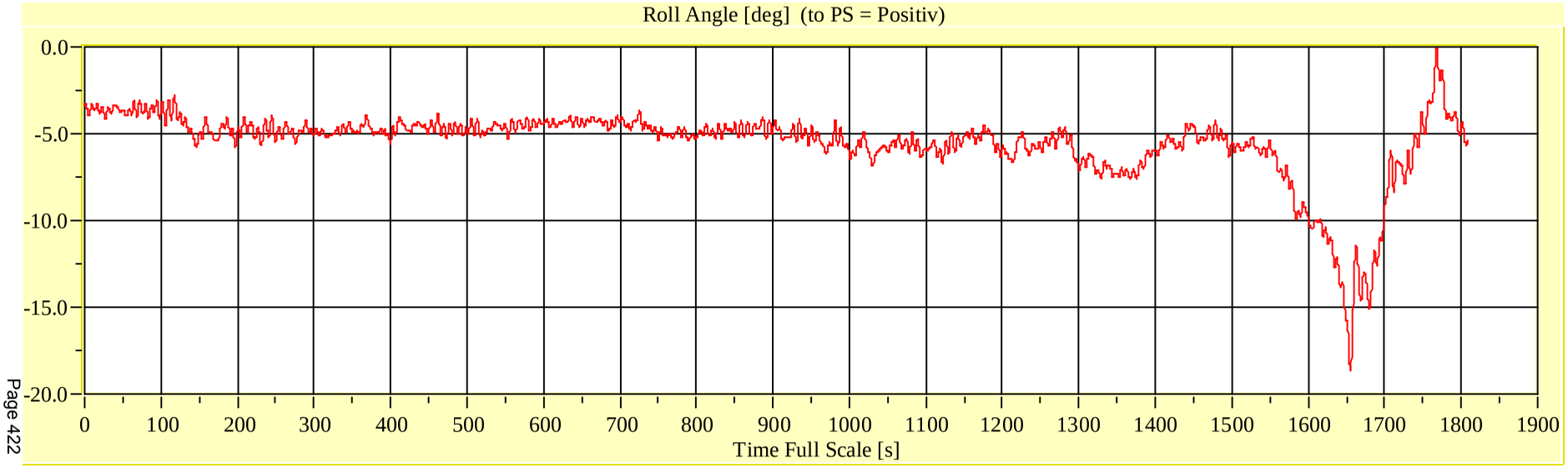


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

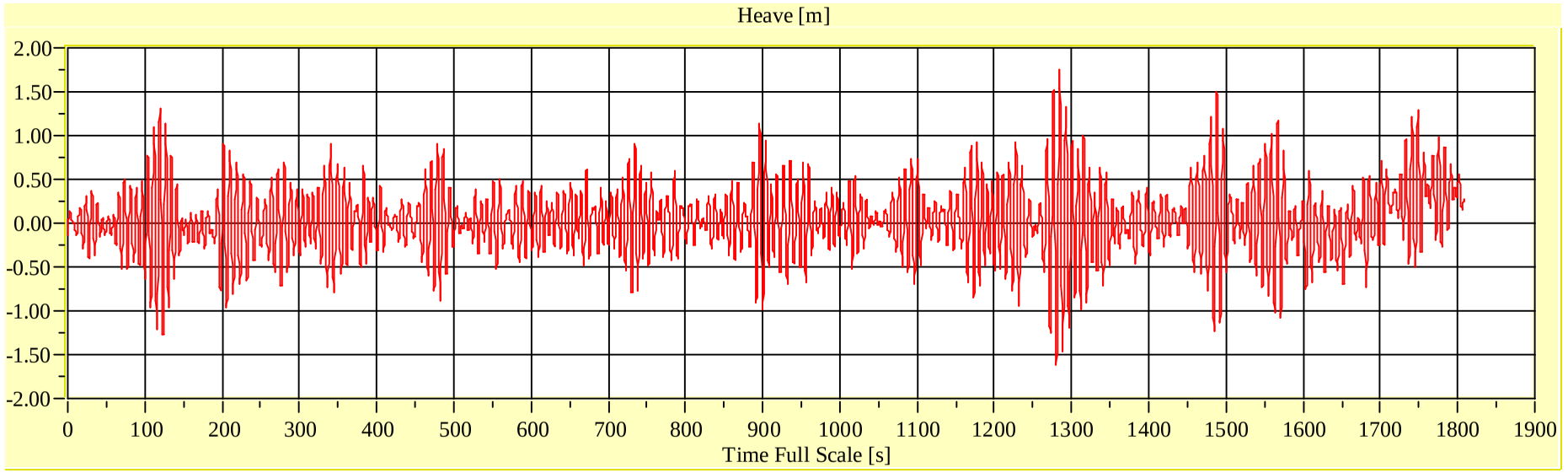


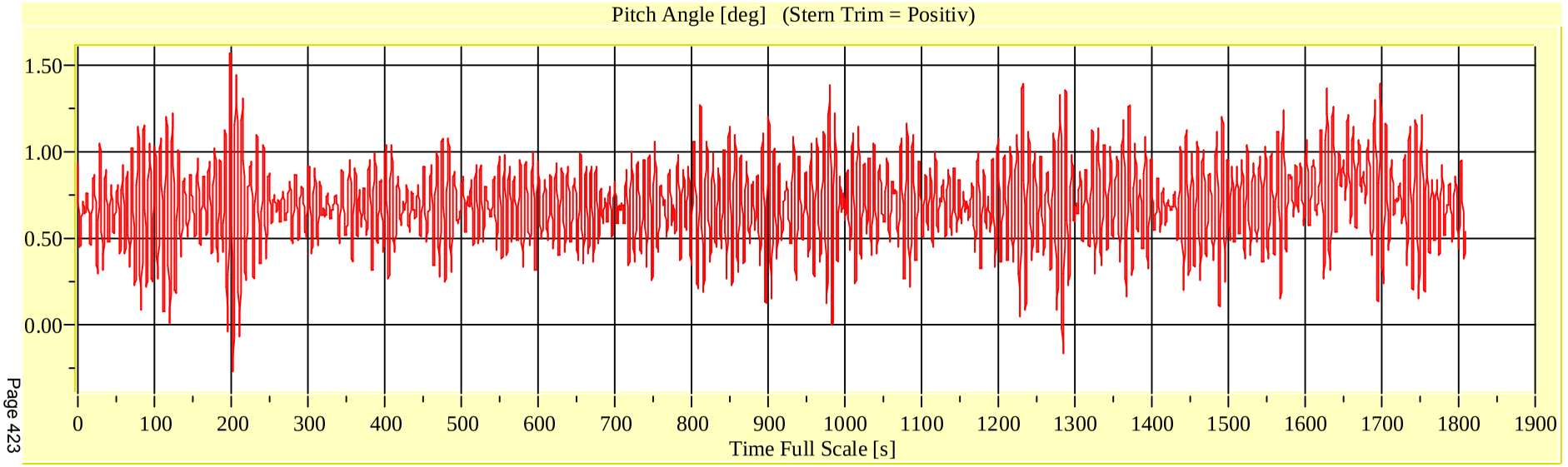


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

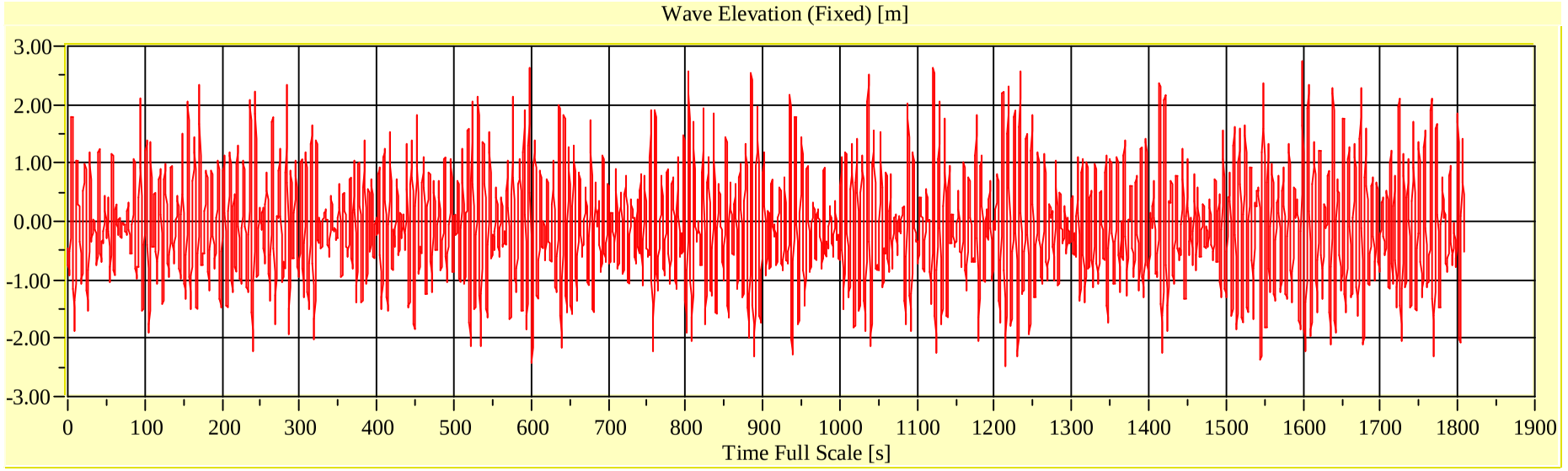


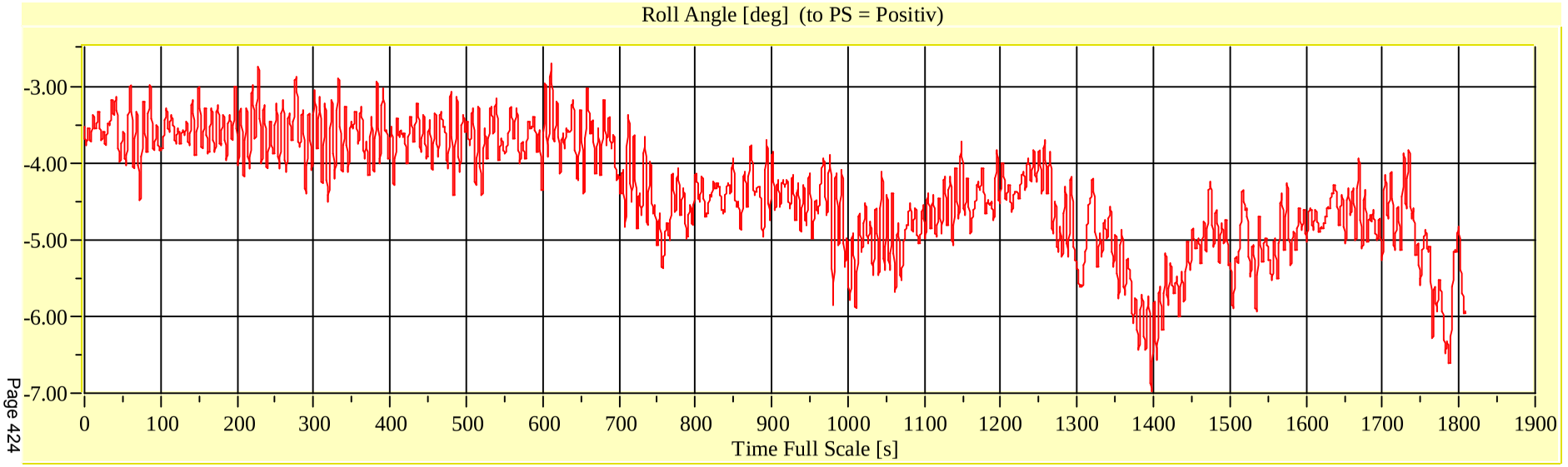


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

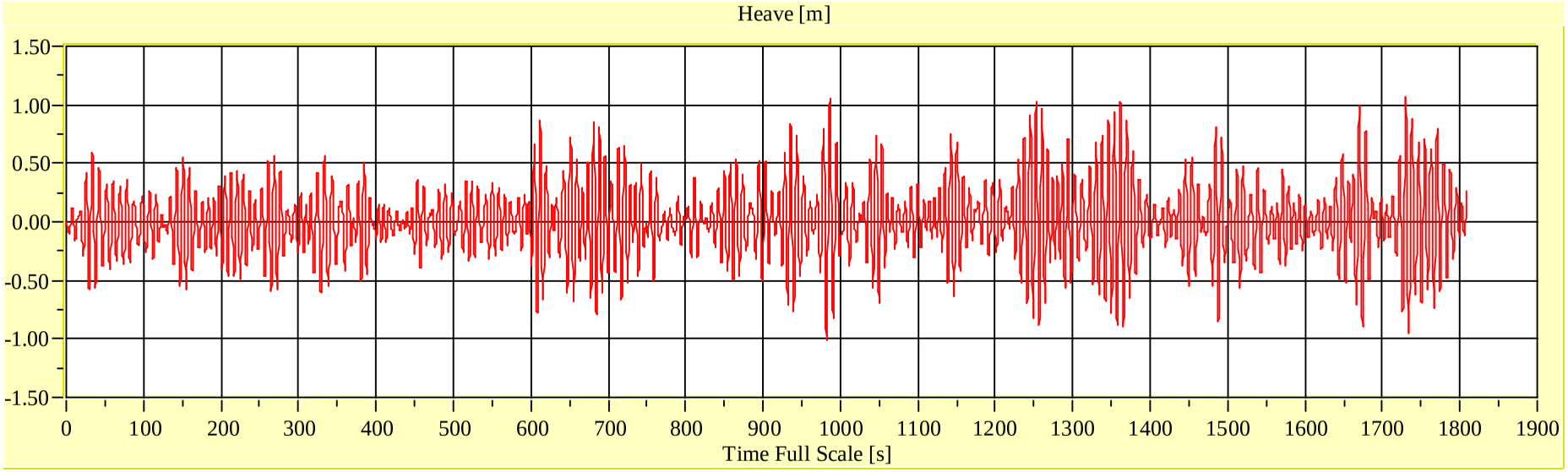


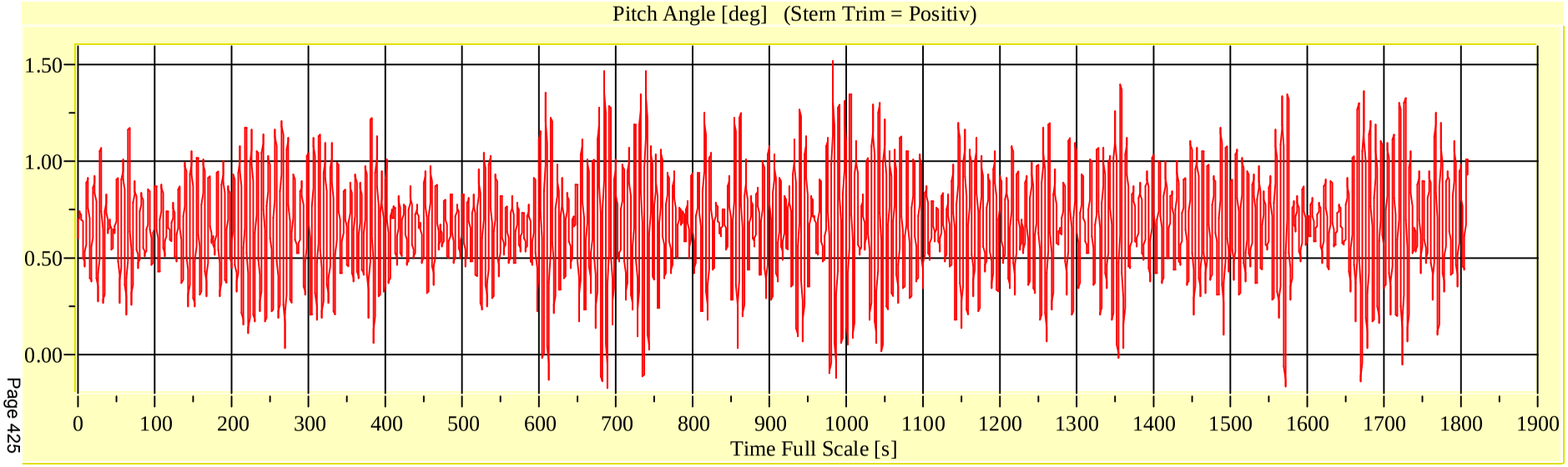


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

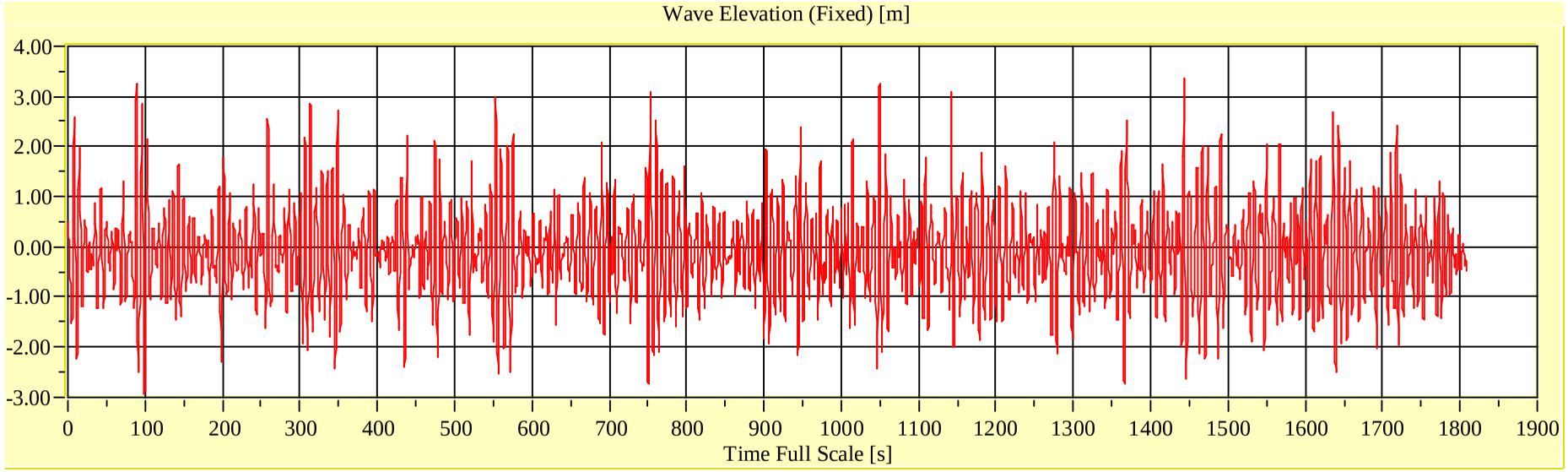


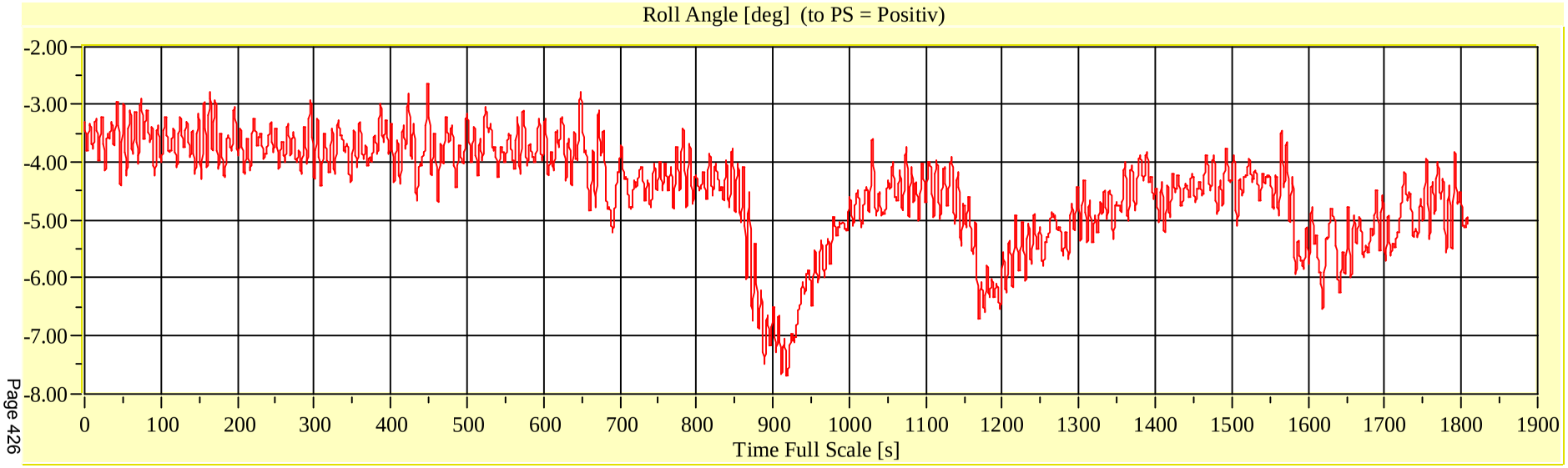


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

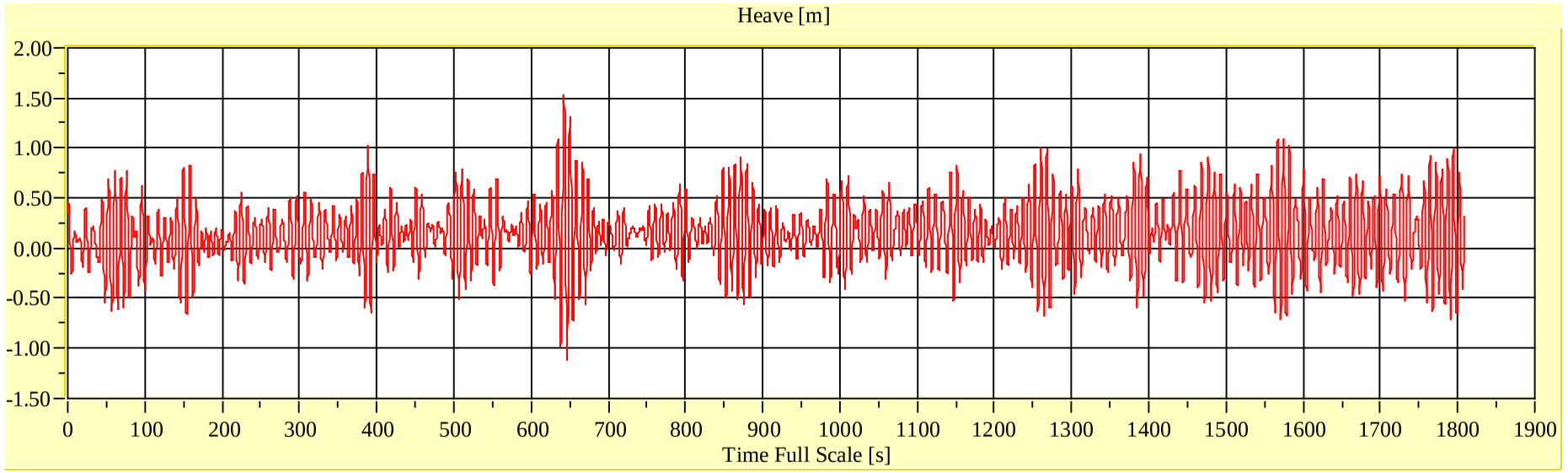


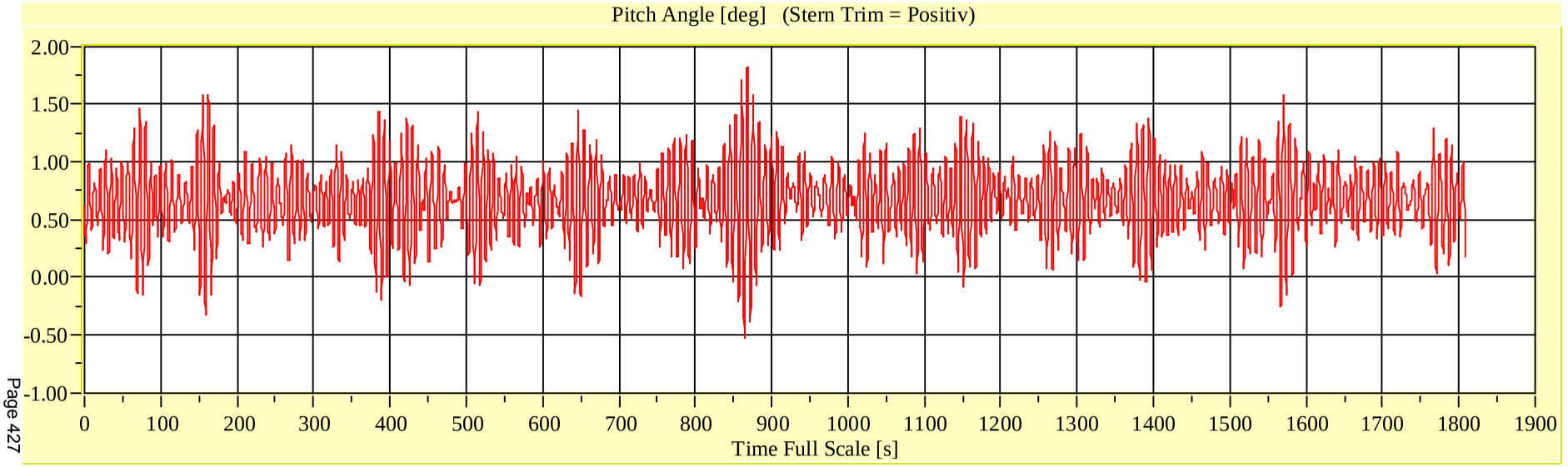


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

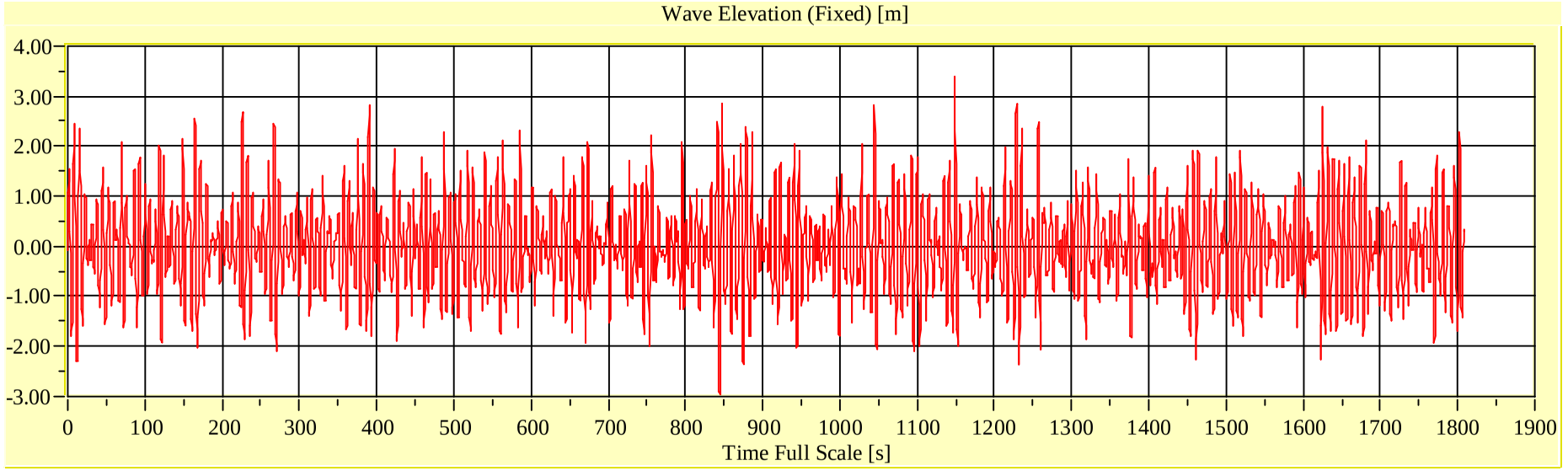


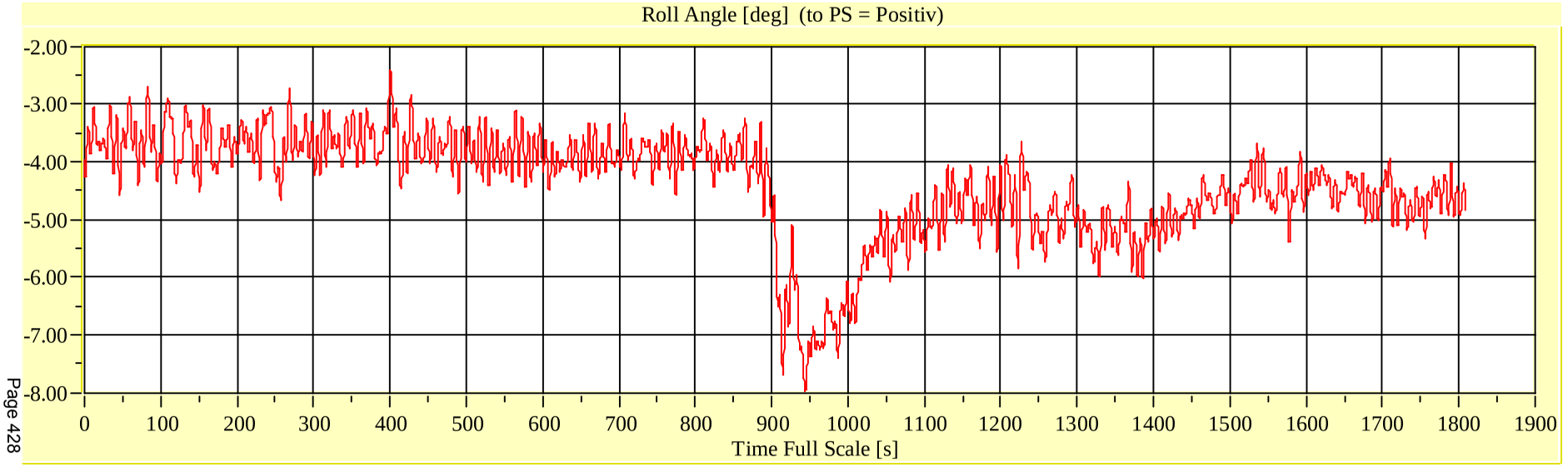


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

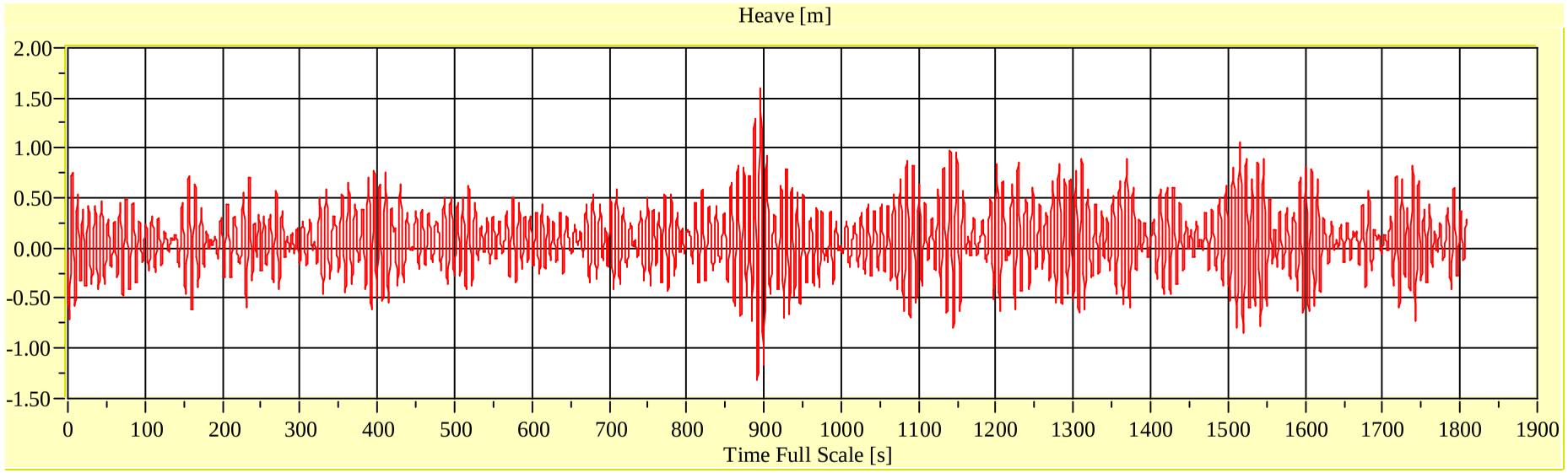


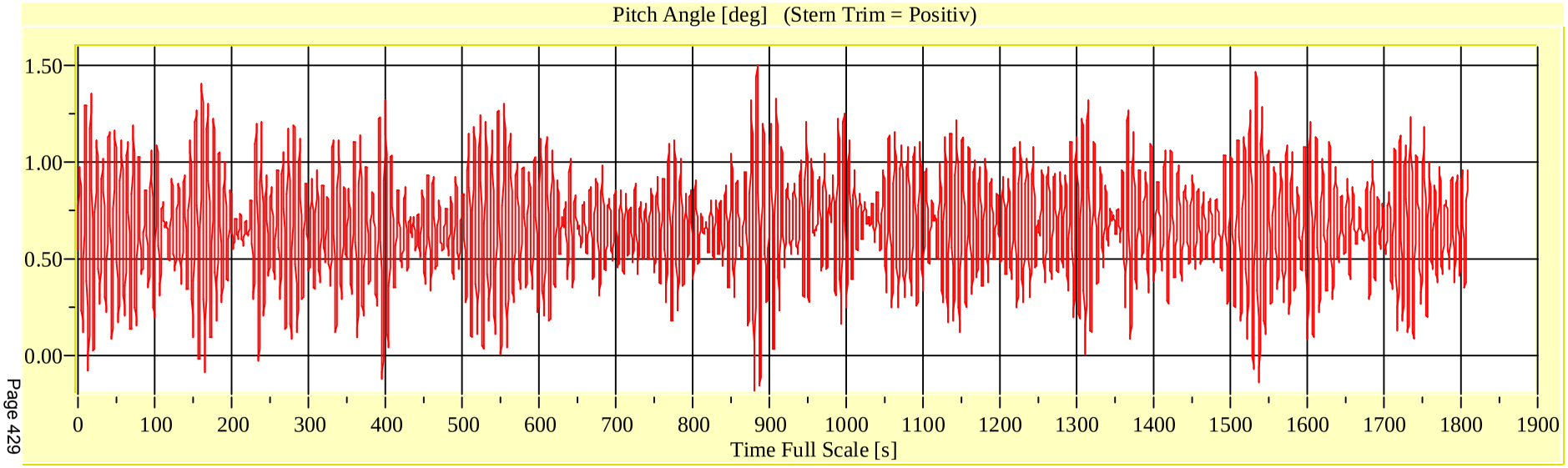


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

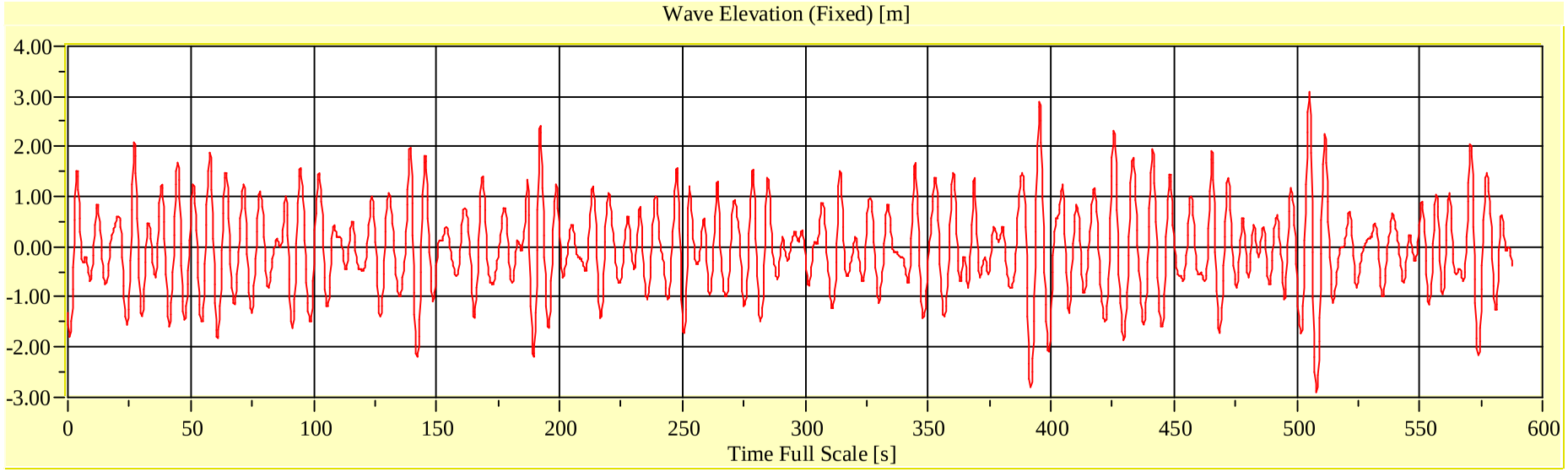


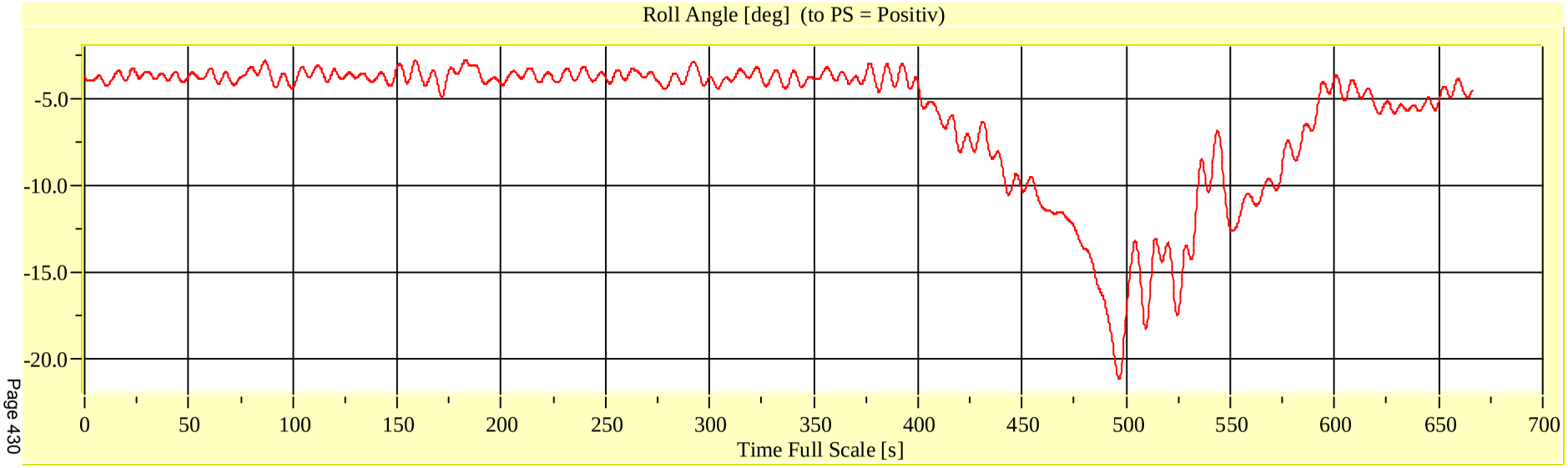


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

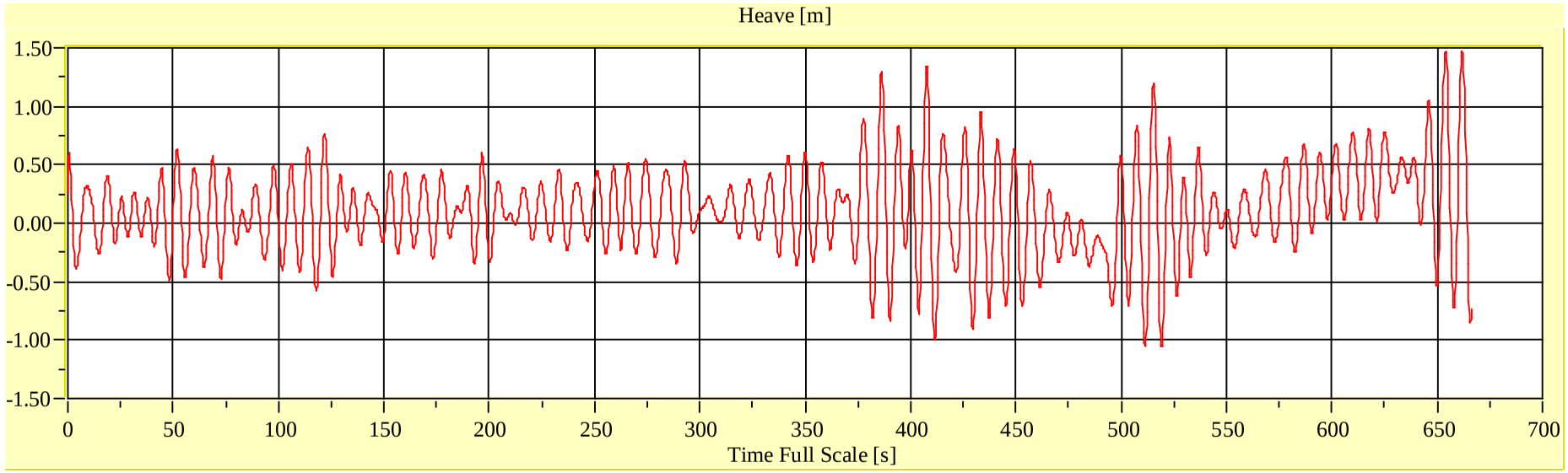


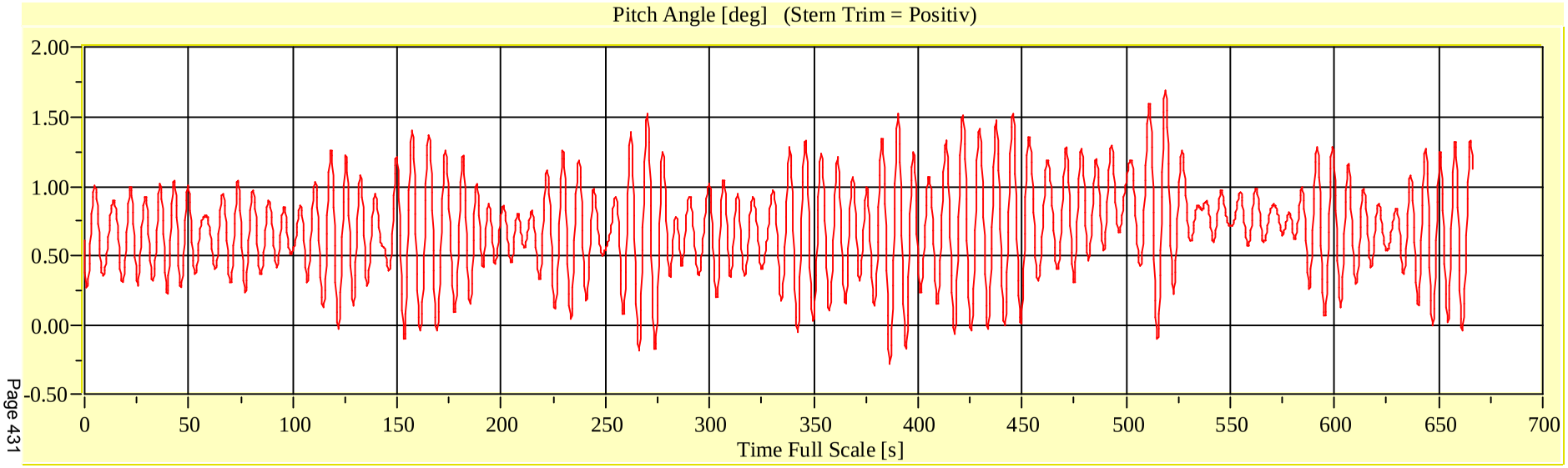


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

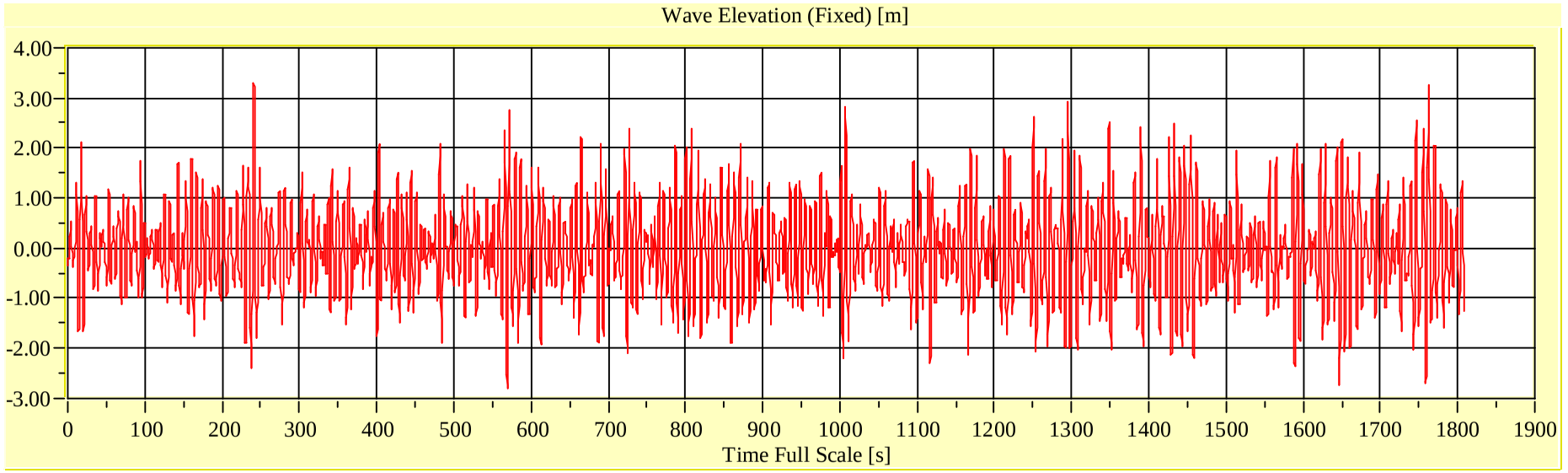


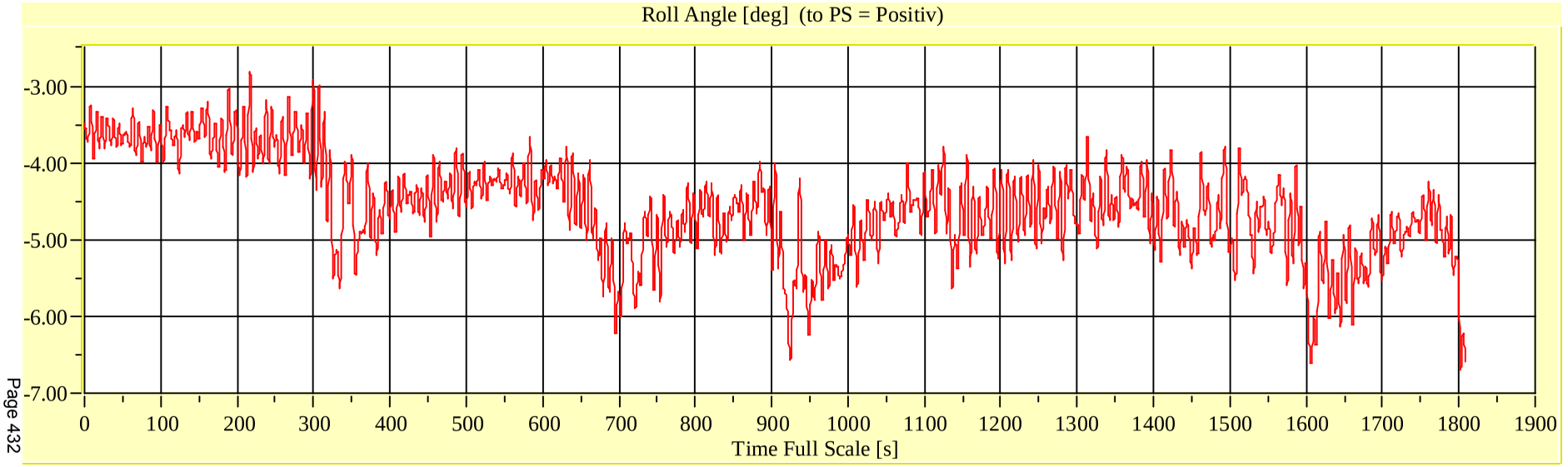


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

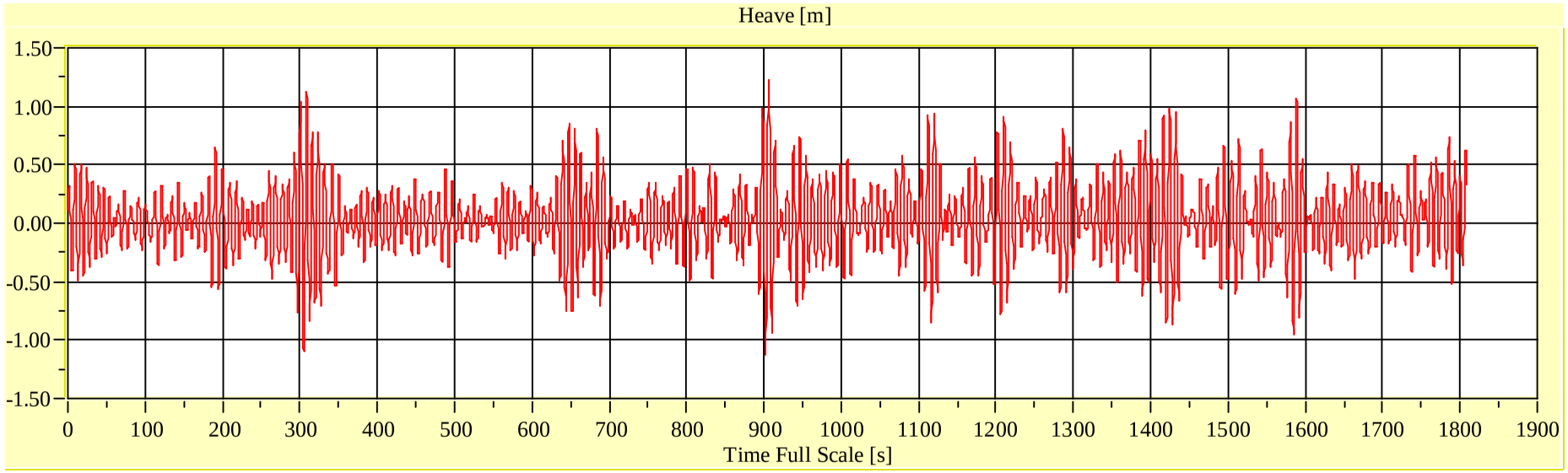


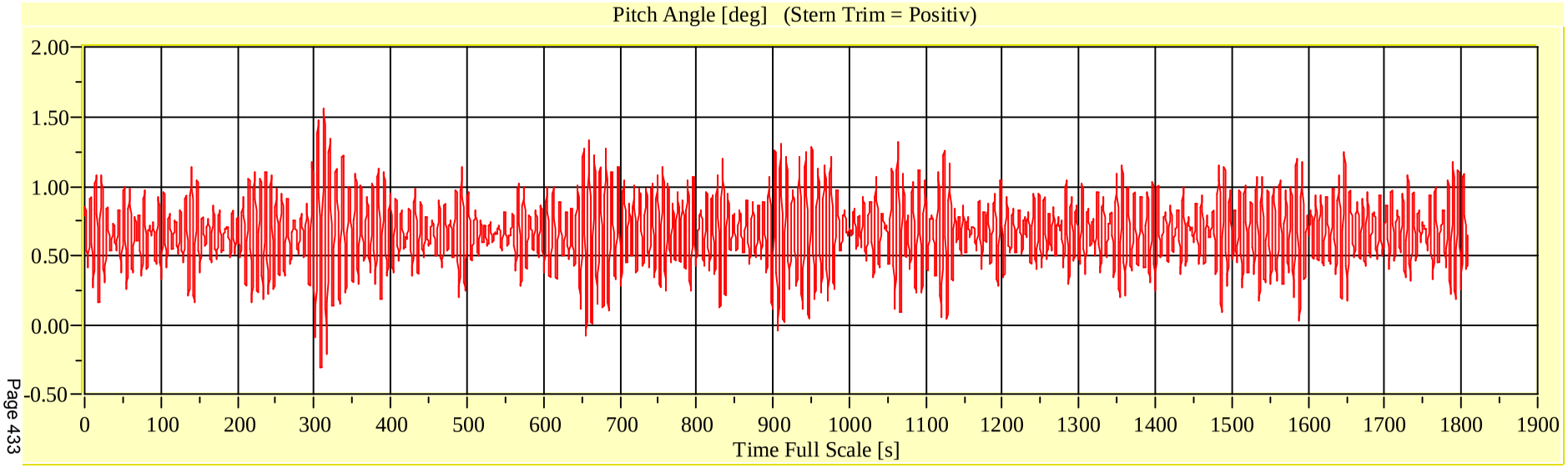


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29717-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

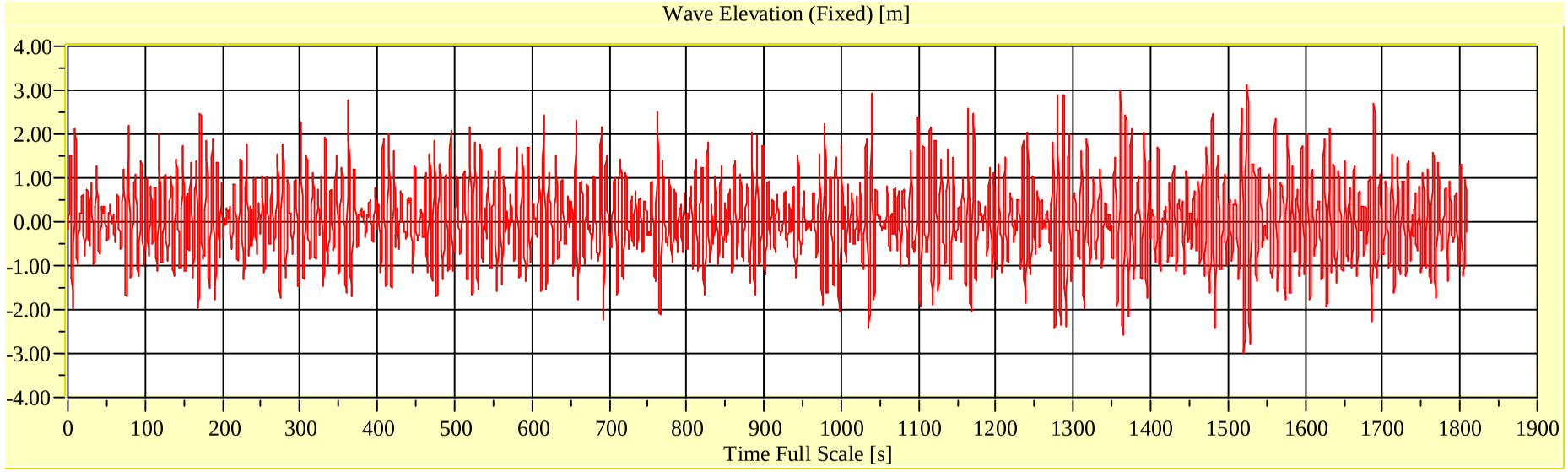


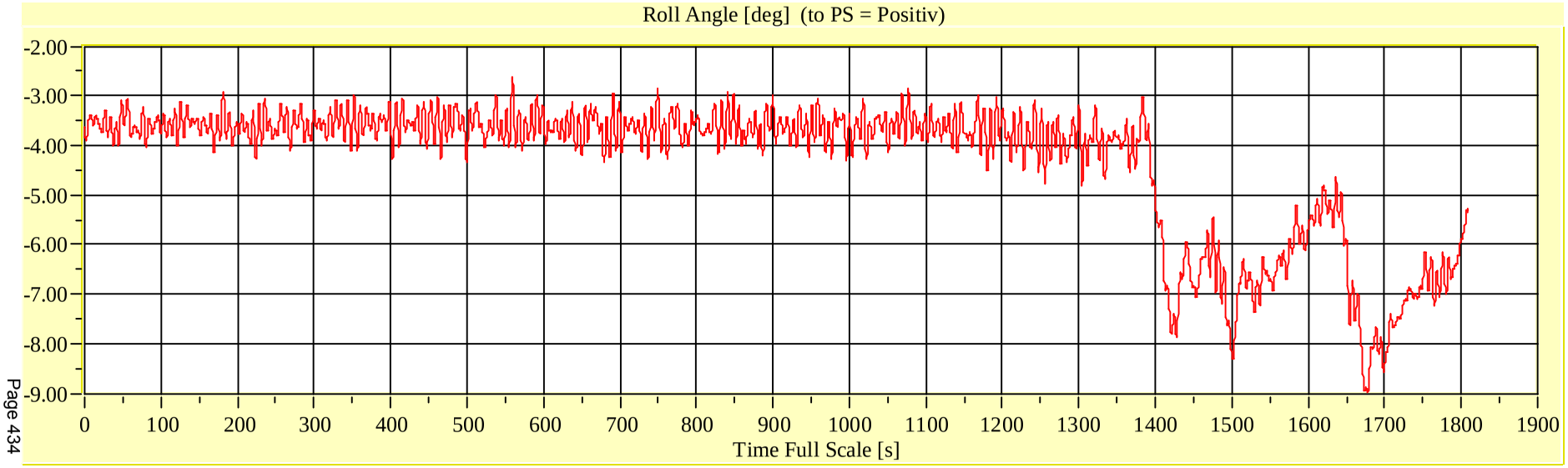


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

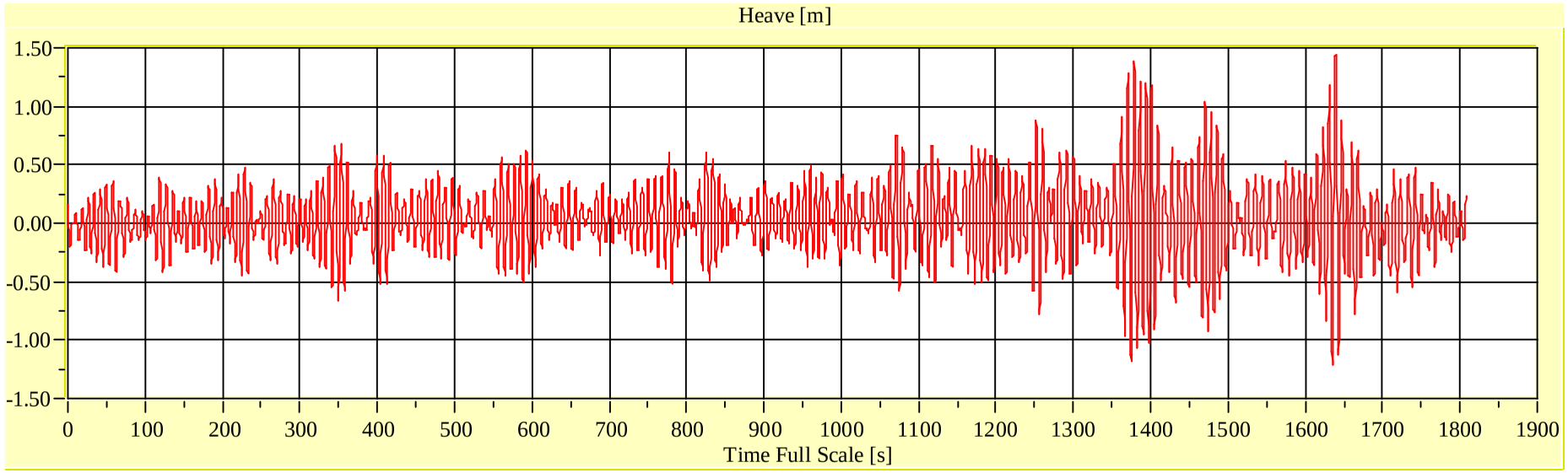


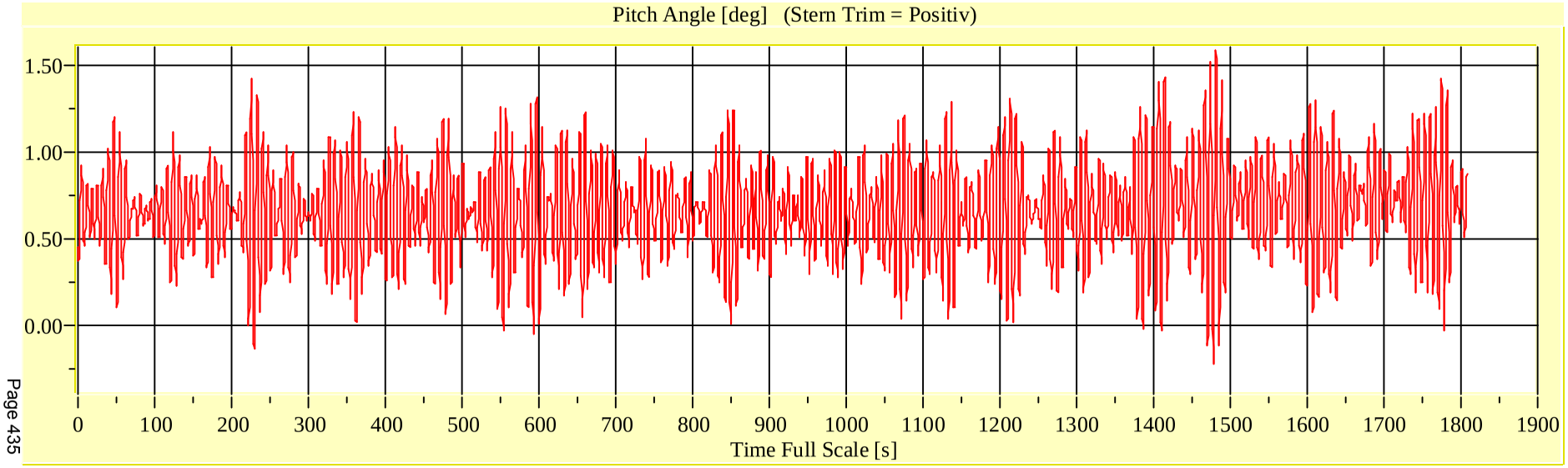


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

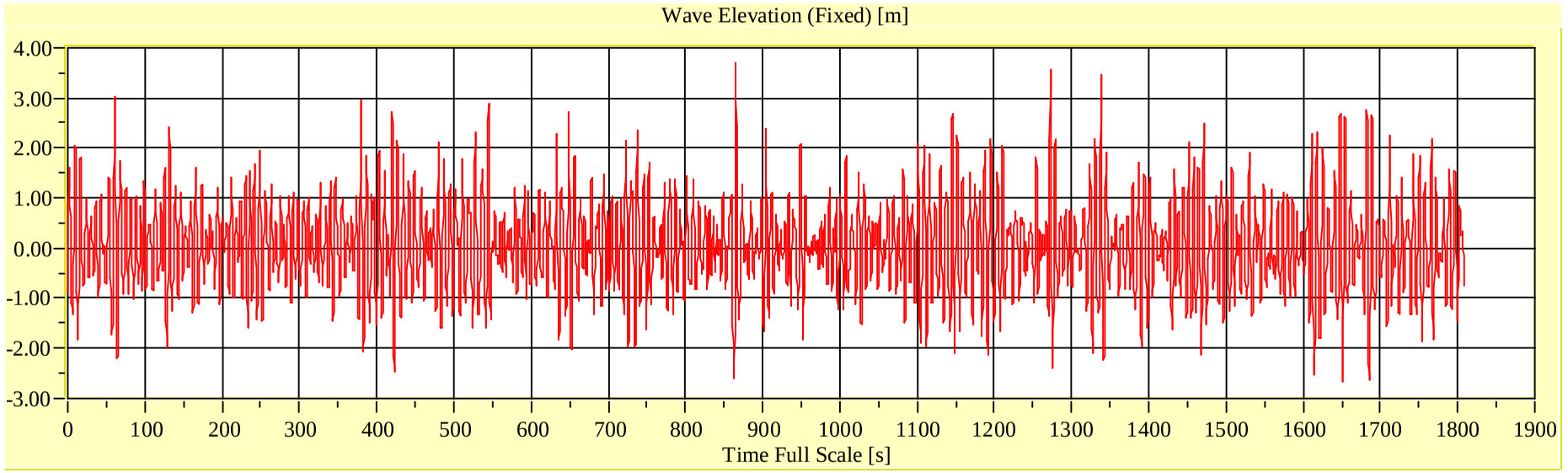


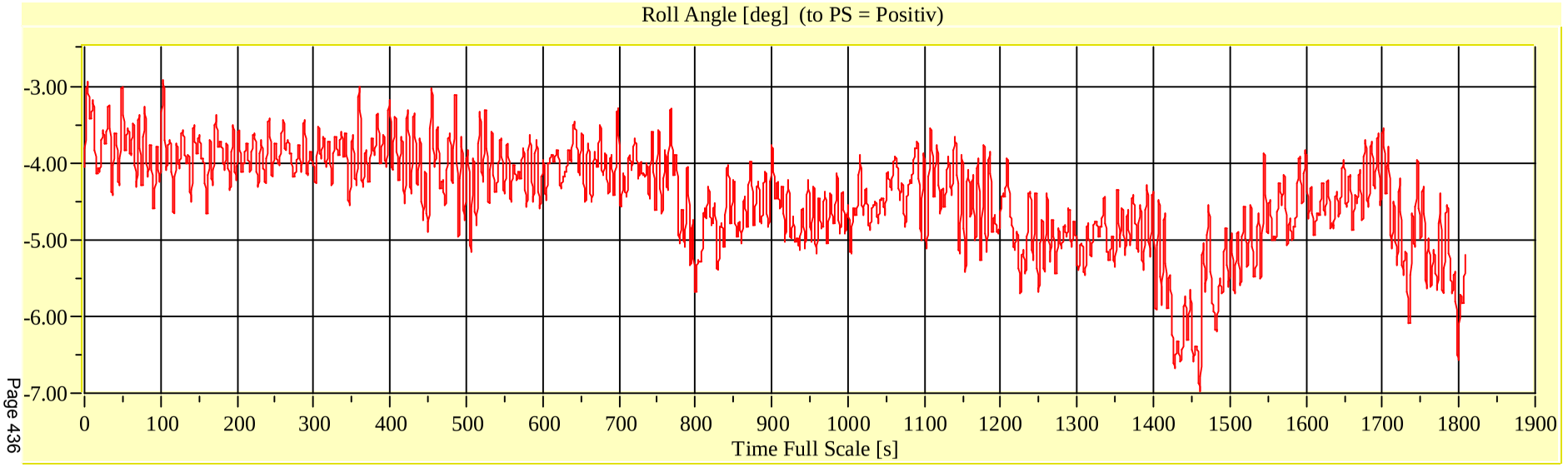


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

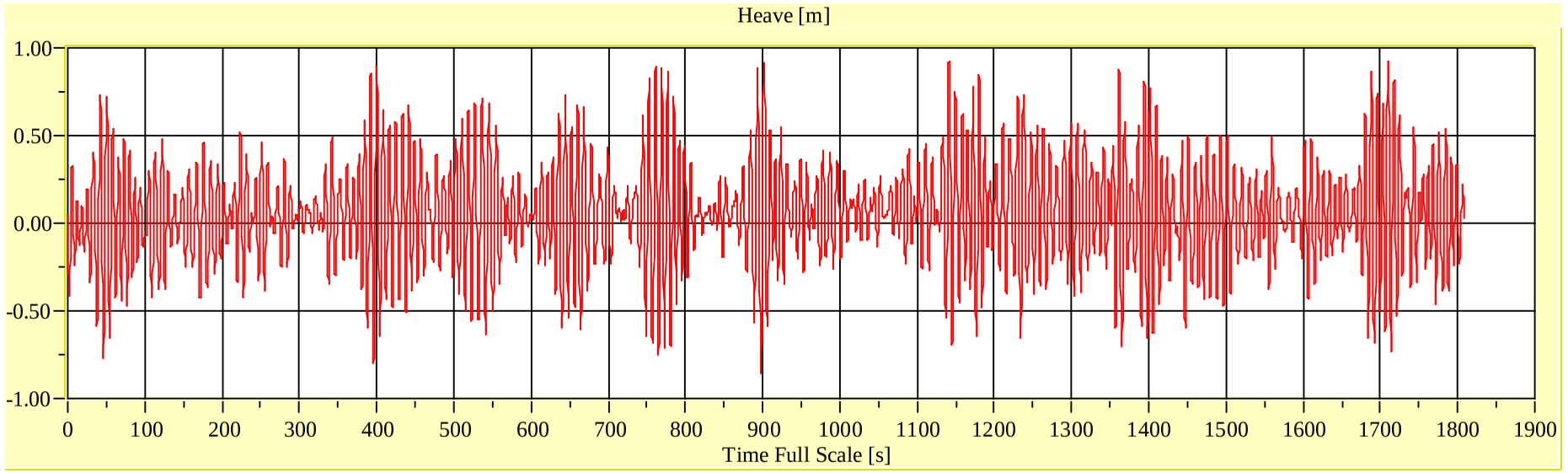


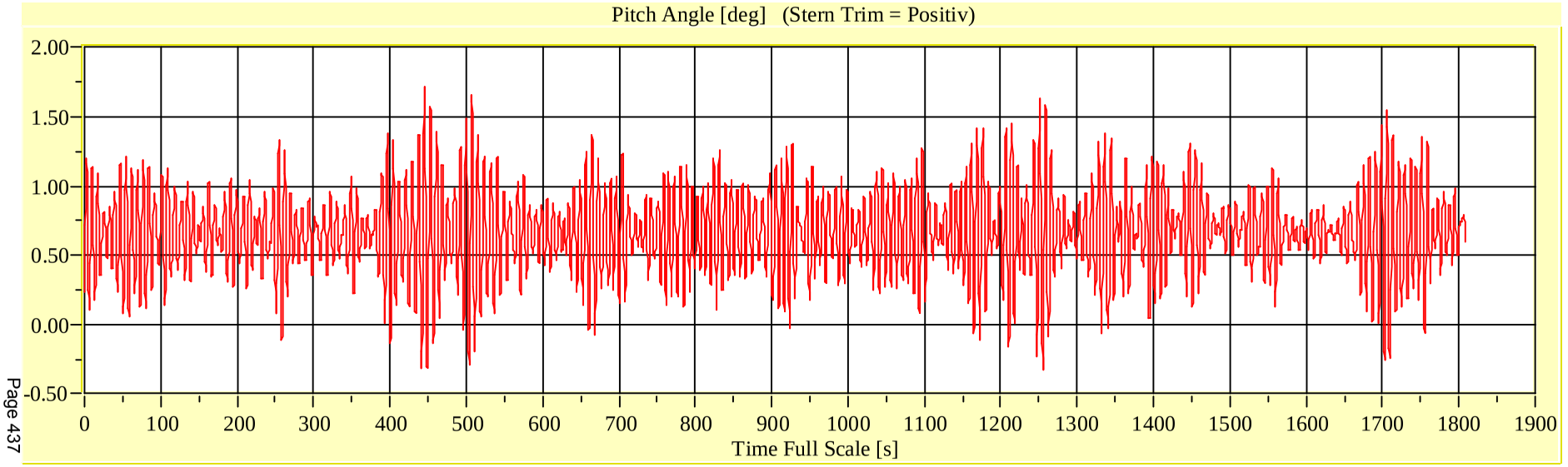


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3



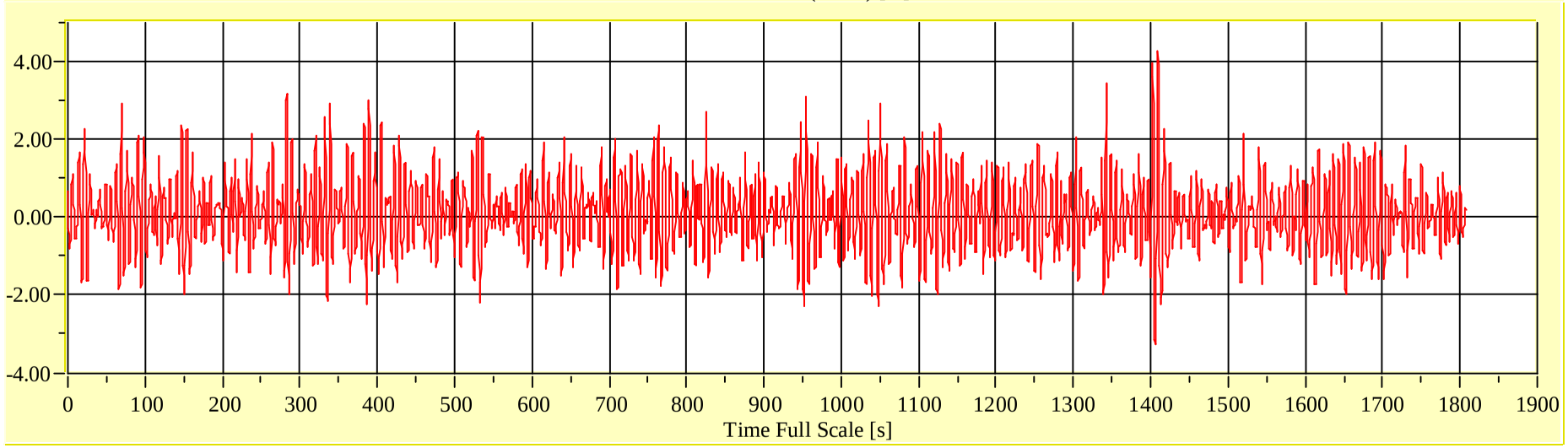


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

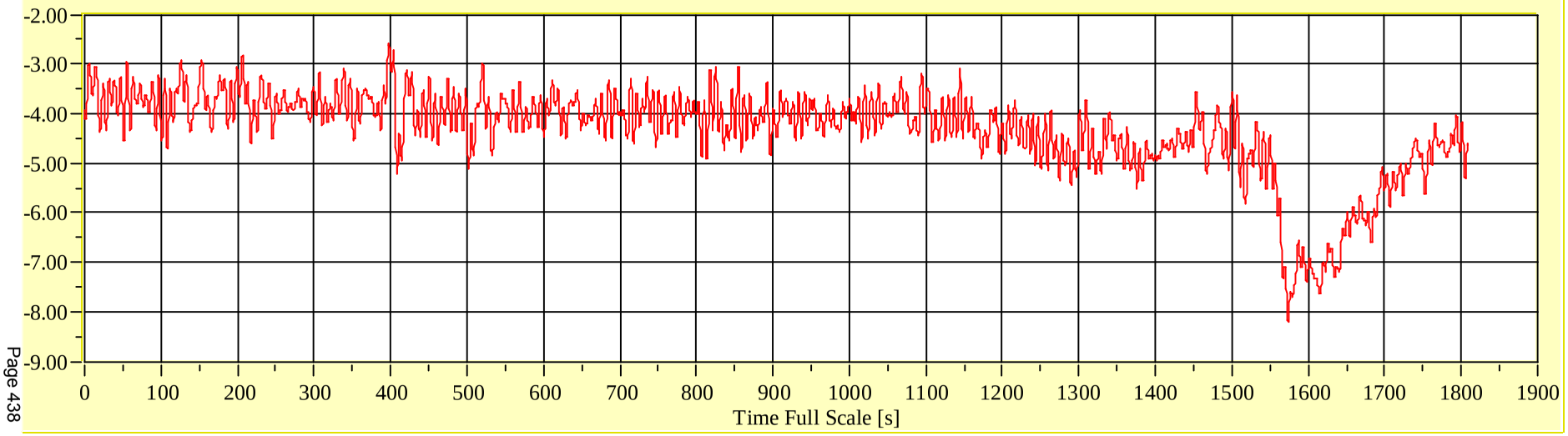
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

Wave Elevation (Fixed) [m]



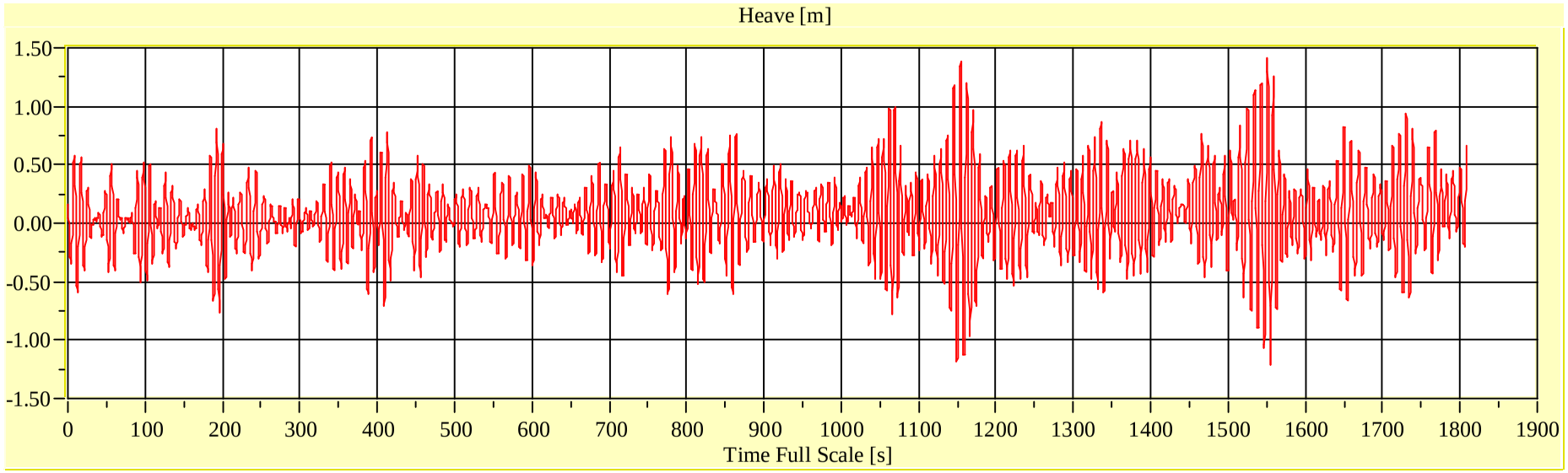
Roll Angle [deg] (to PS = Positiv)

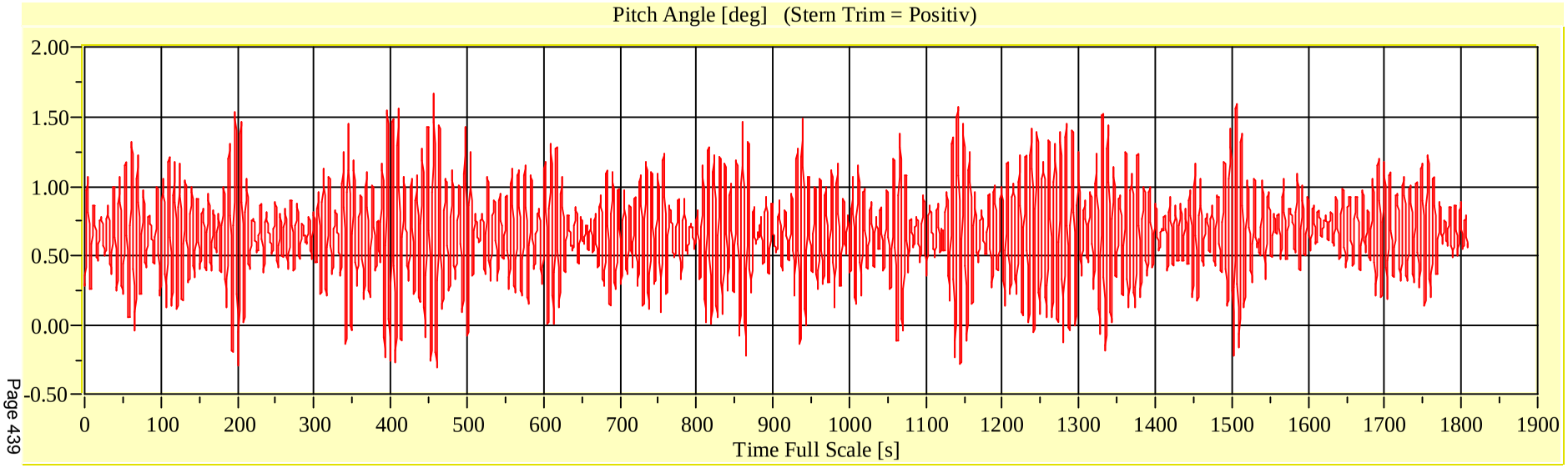


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

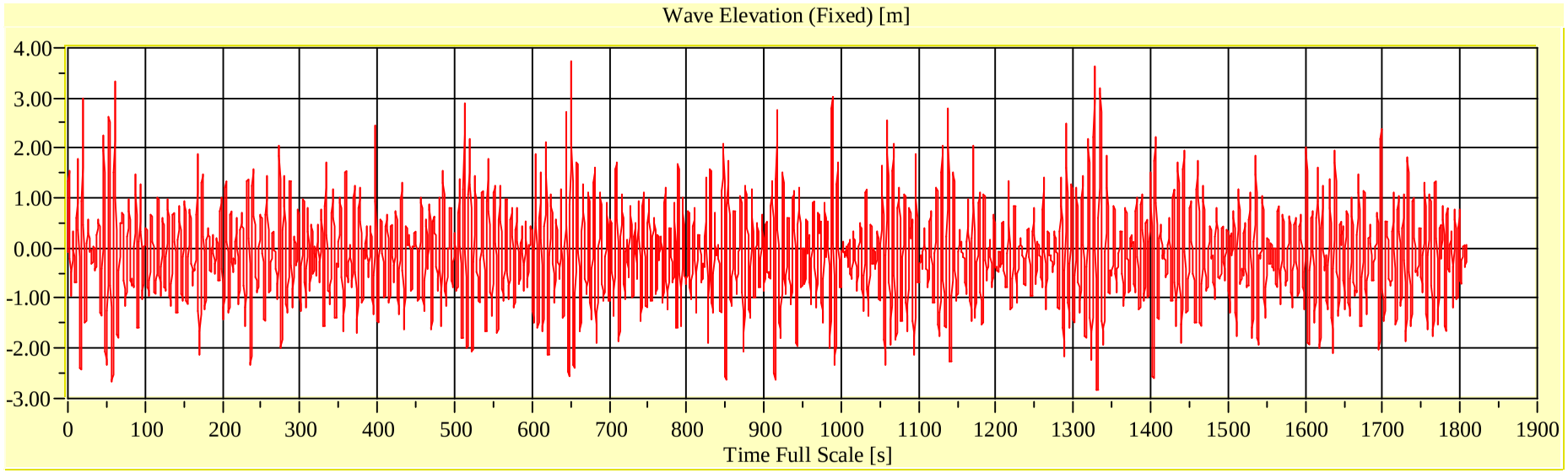


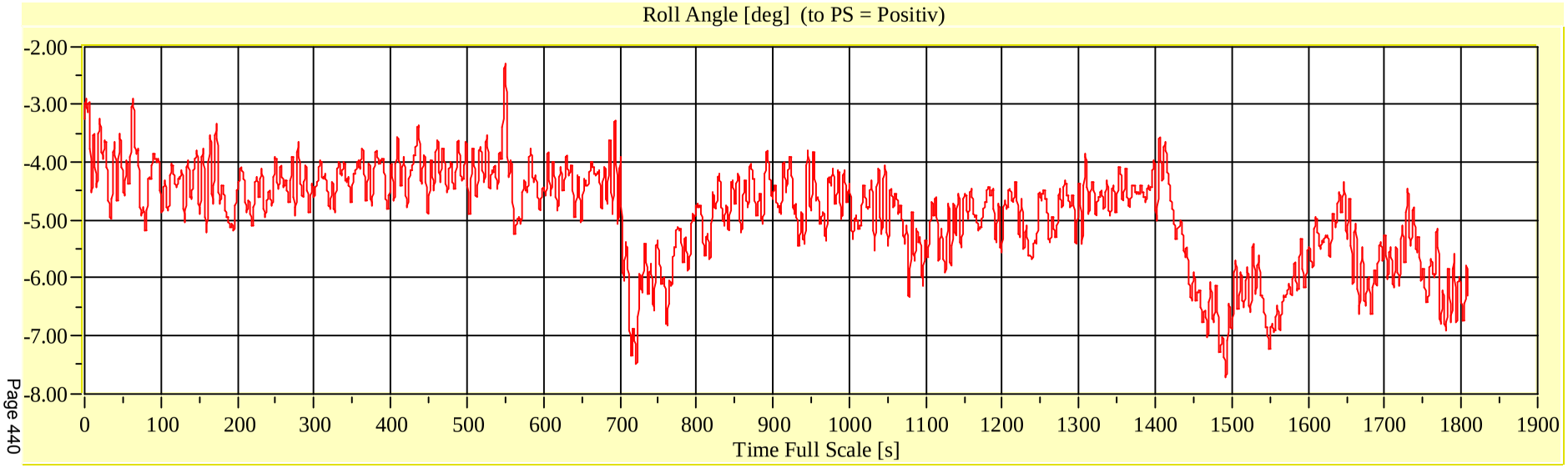


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

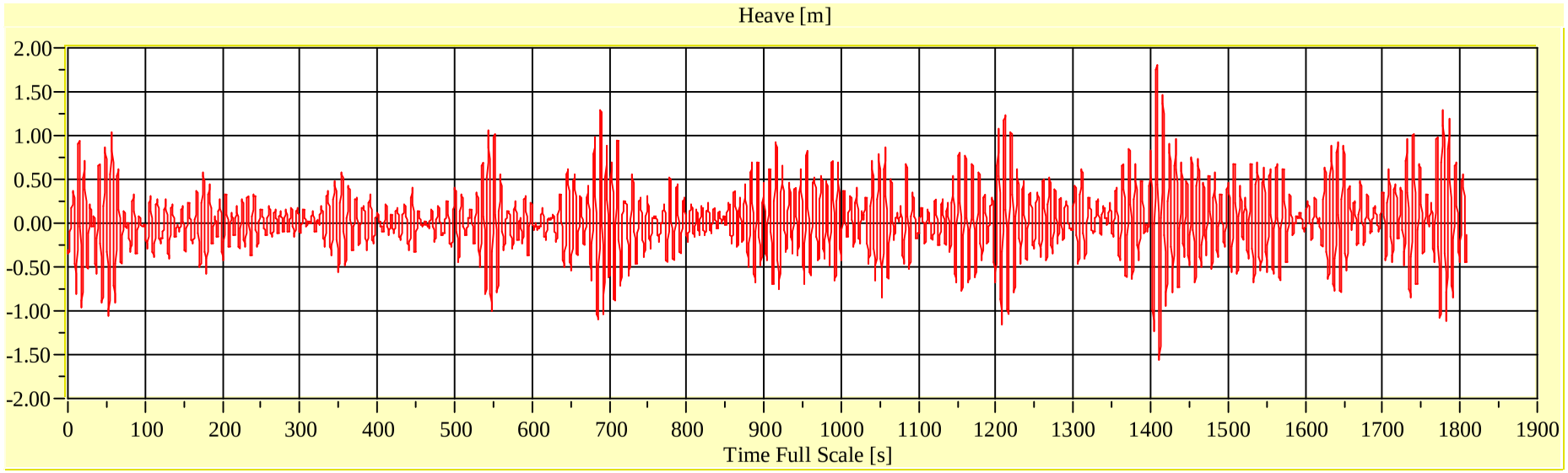


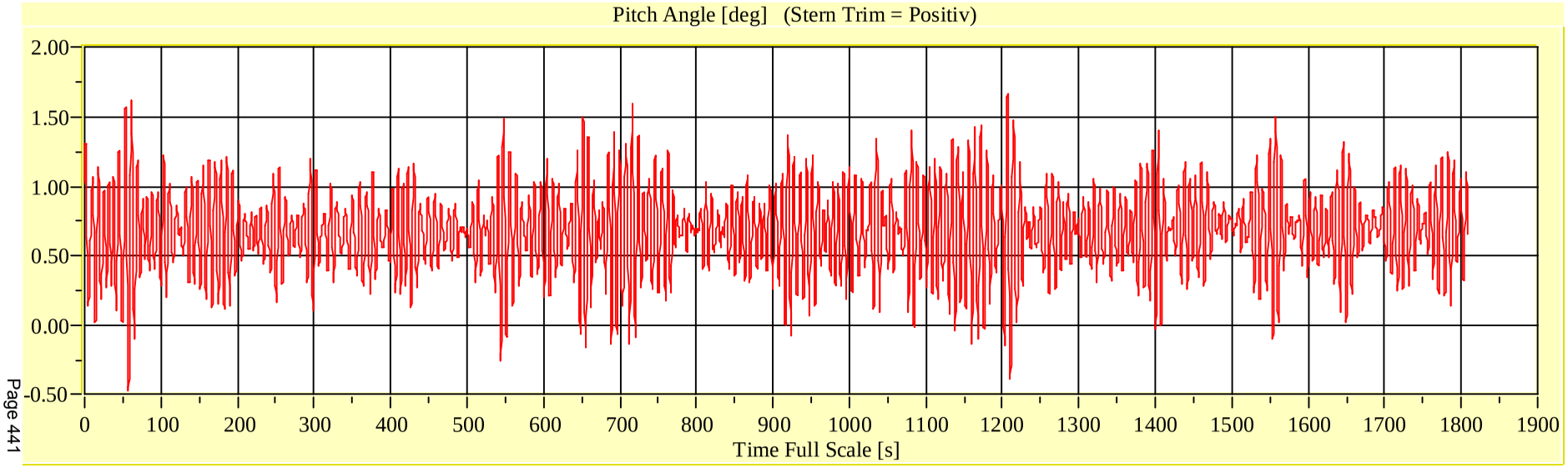


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

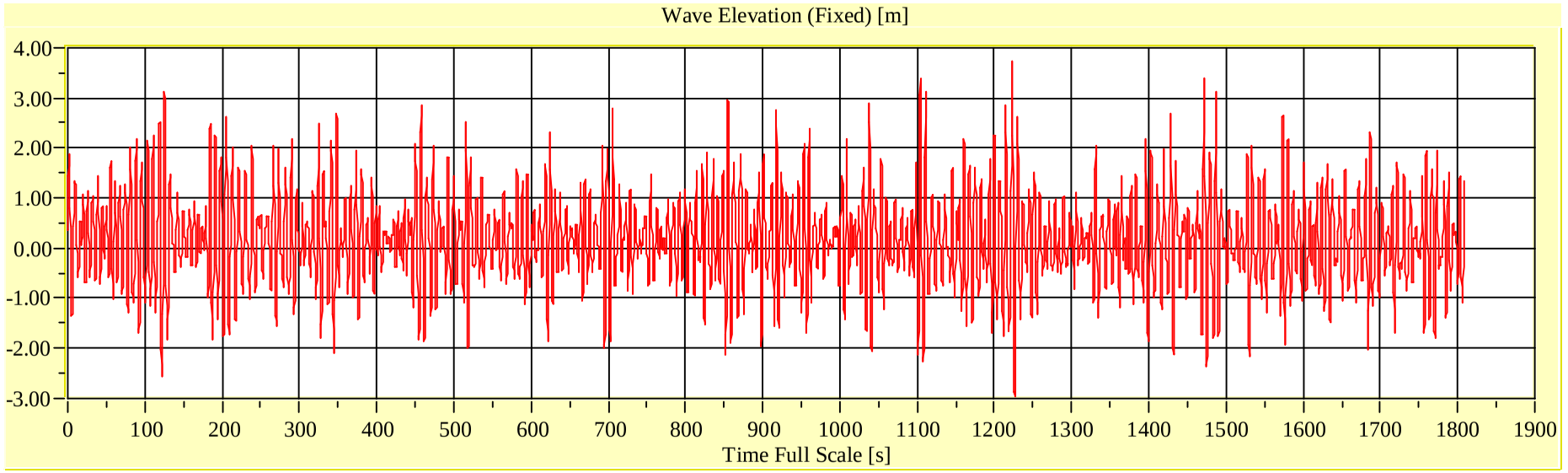


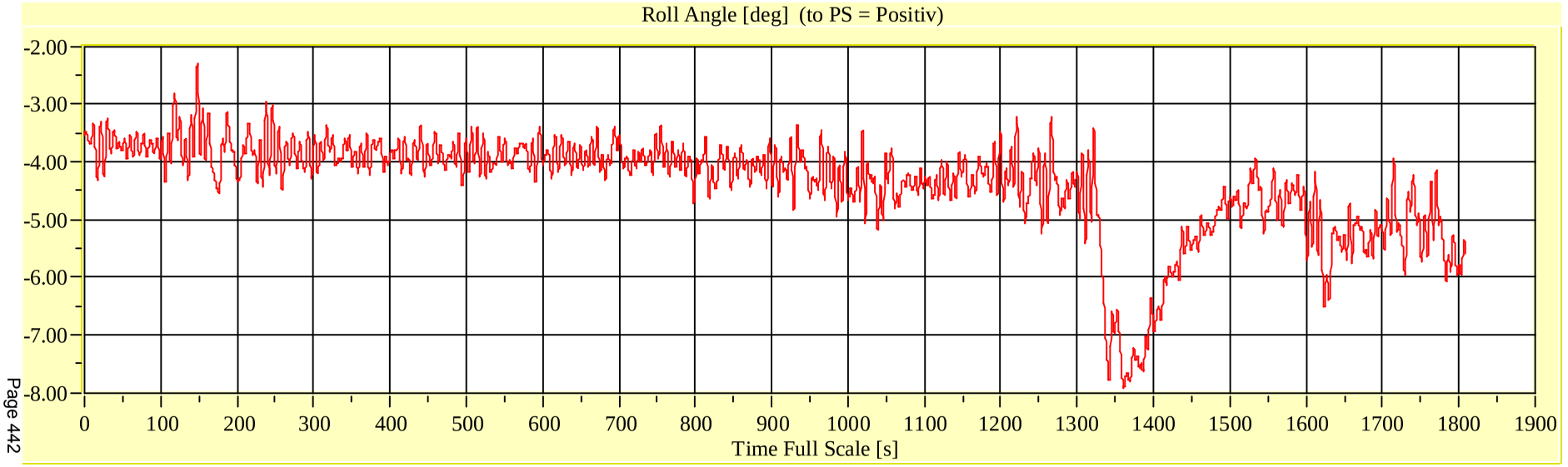


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

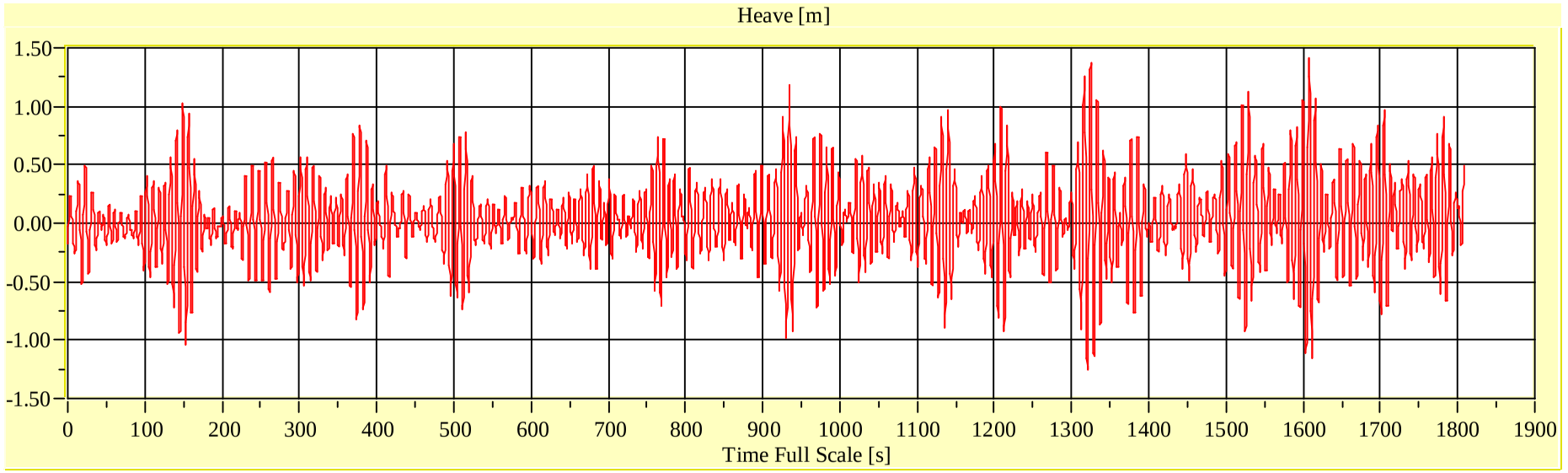


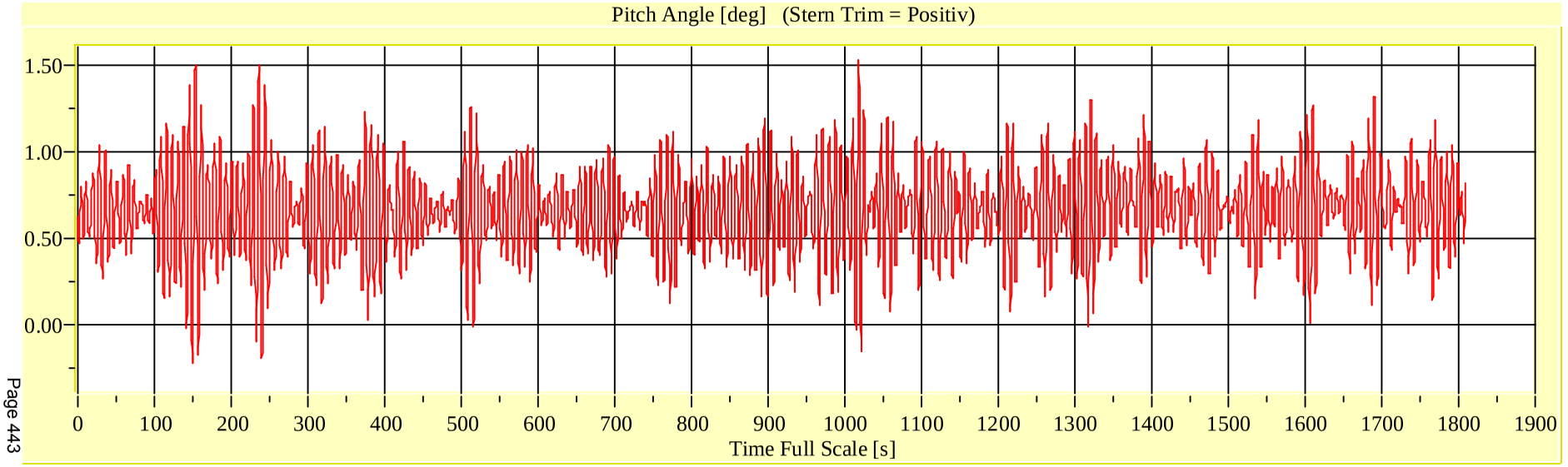


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

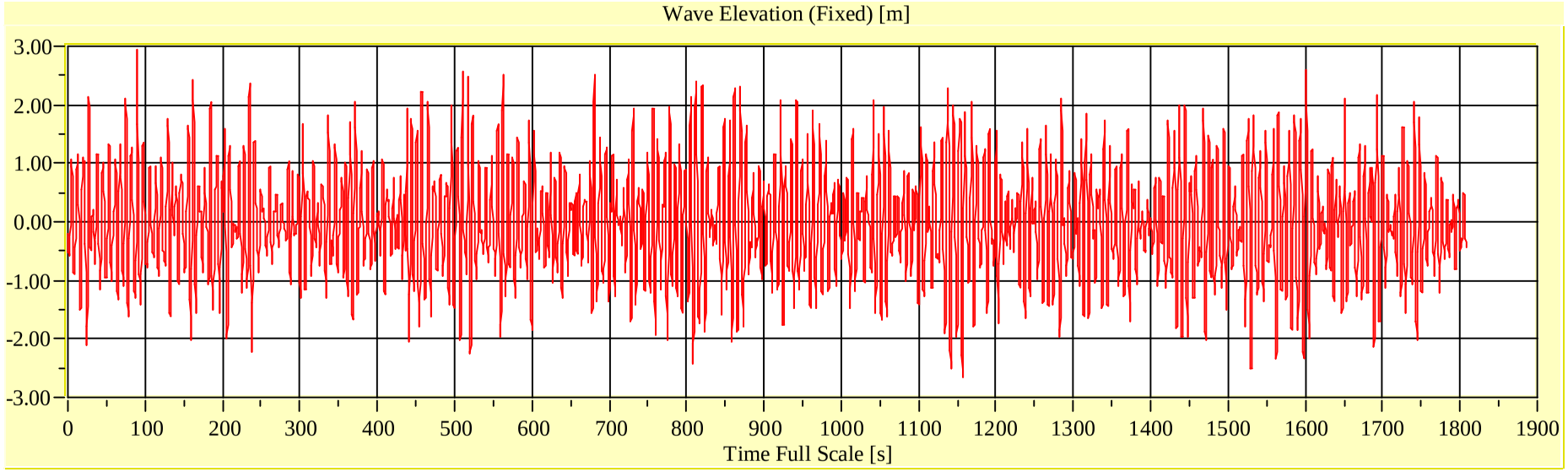


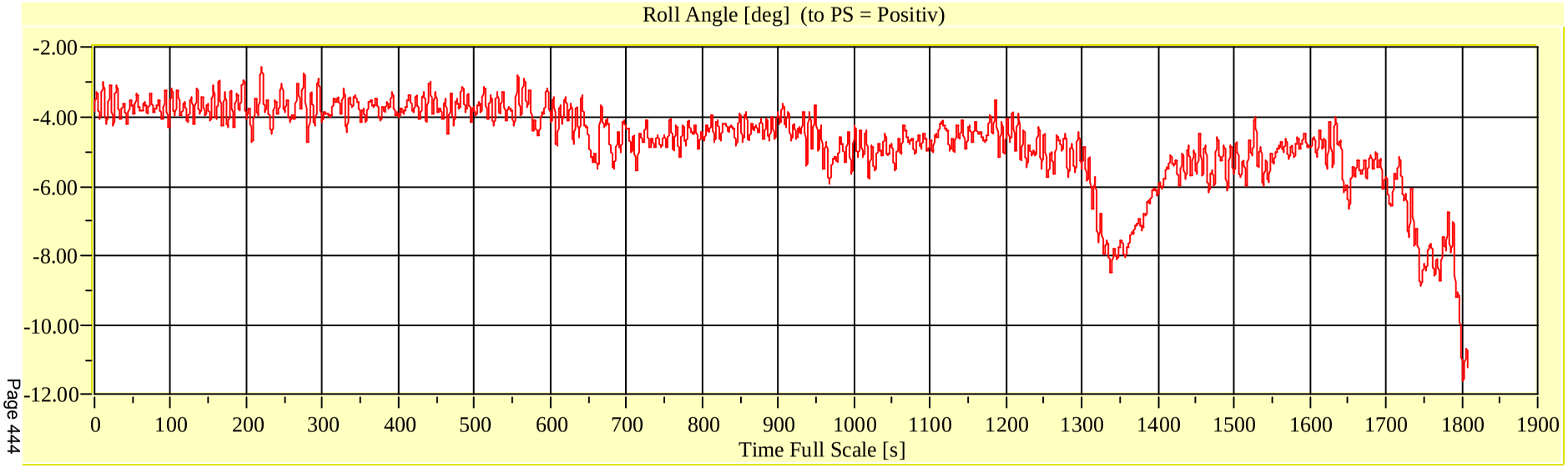


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3



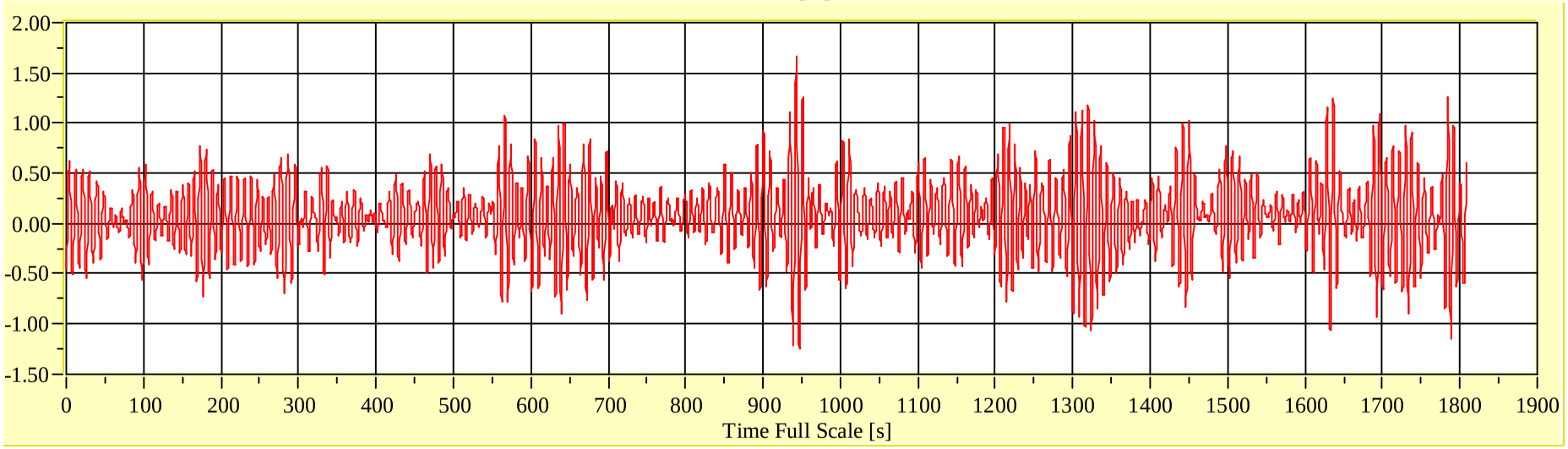


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

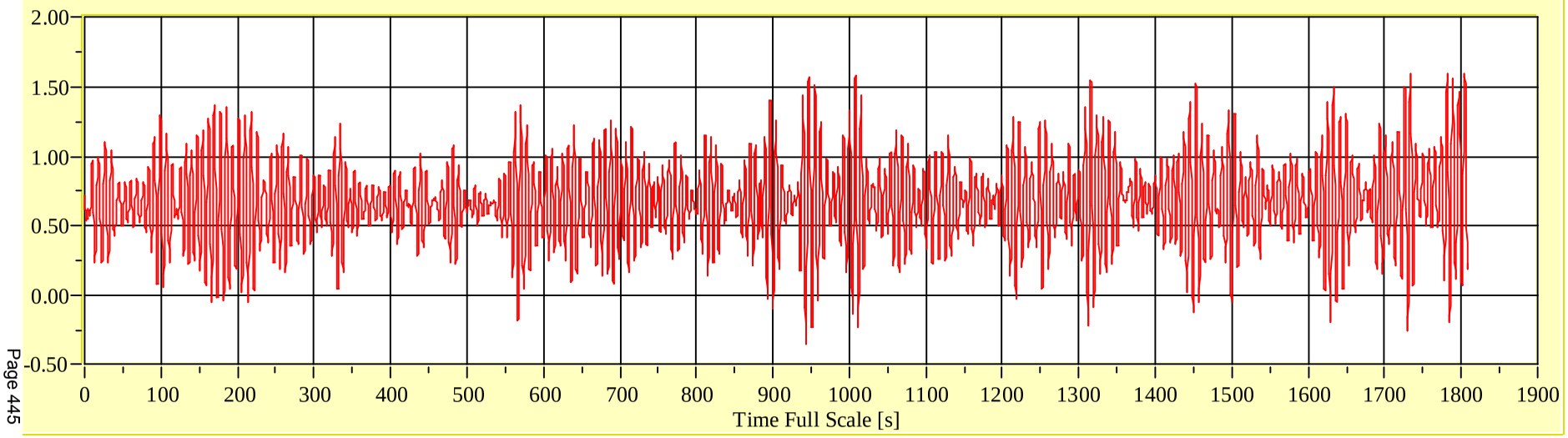
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

Heave [m]



Pitch Angle [deg] (Stern Trim = Positiv)

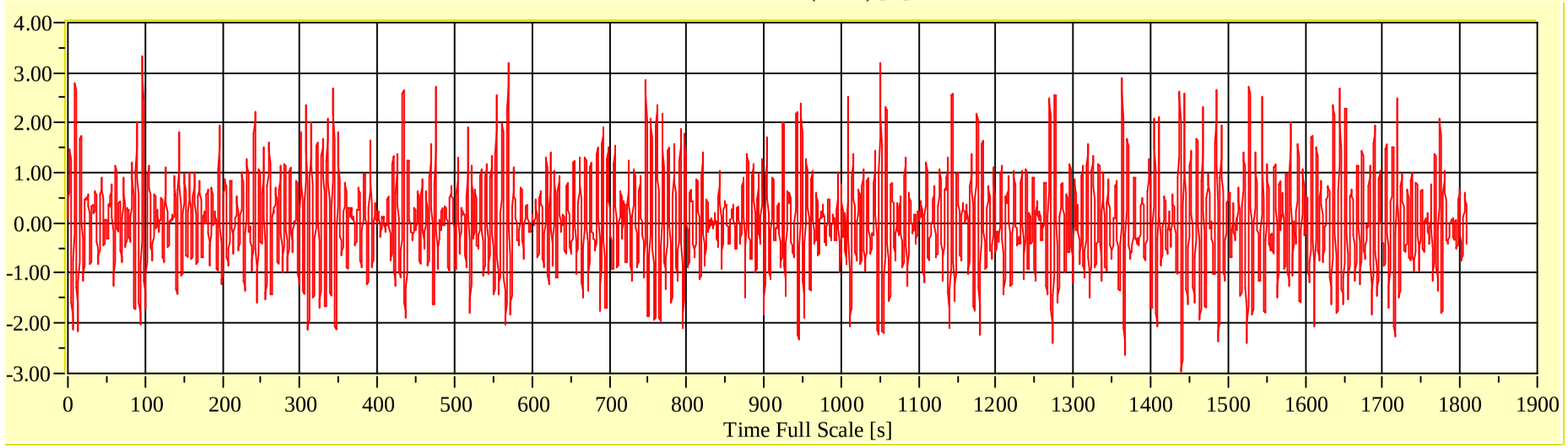


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

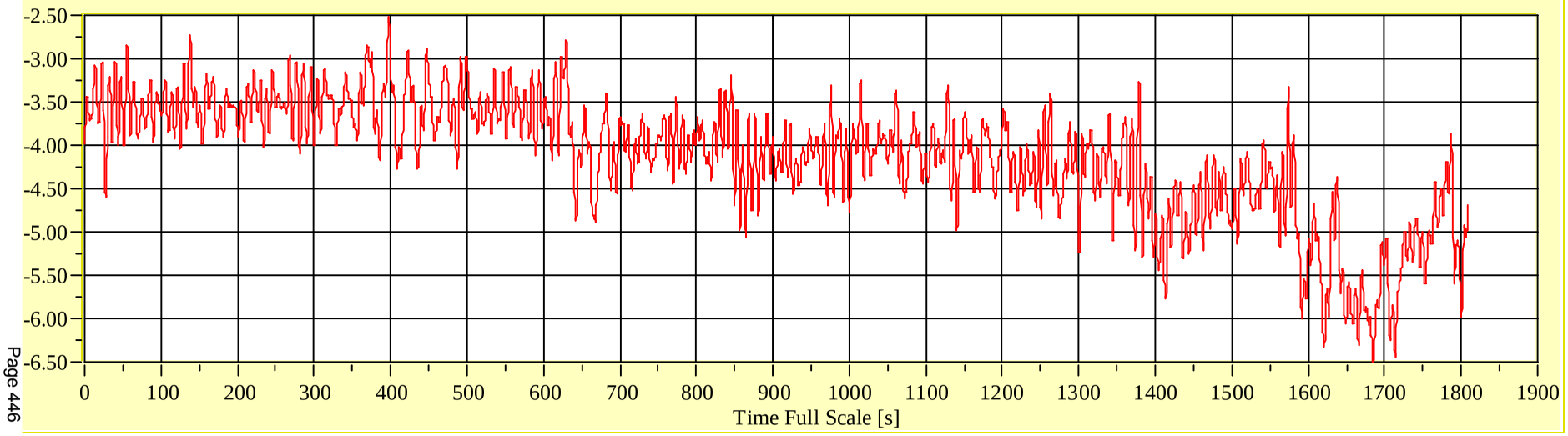
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

Wave Elevation (Fixed) [m]



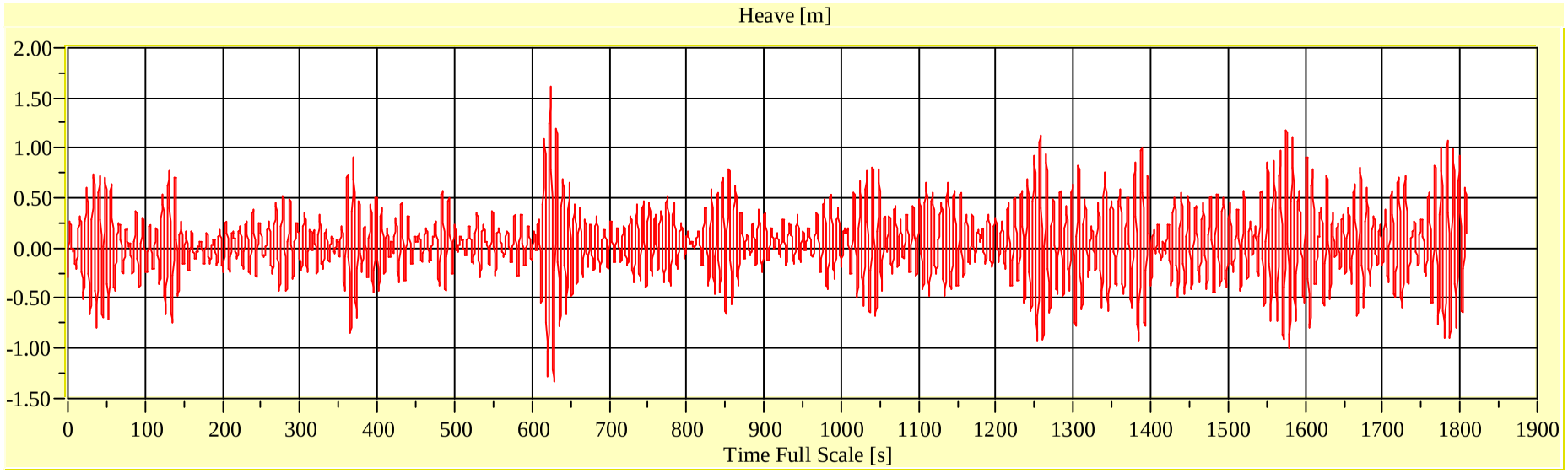
Roll Angle [deg] (to PS = Positiv)

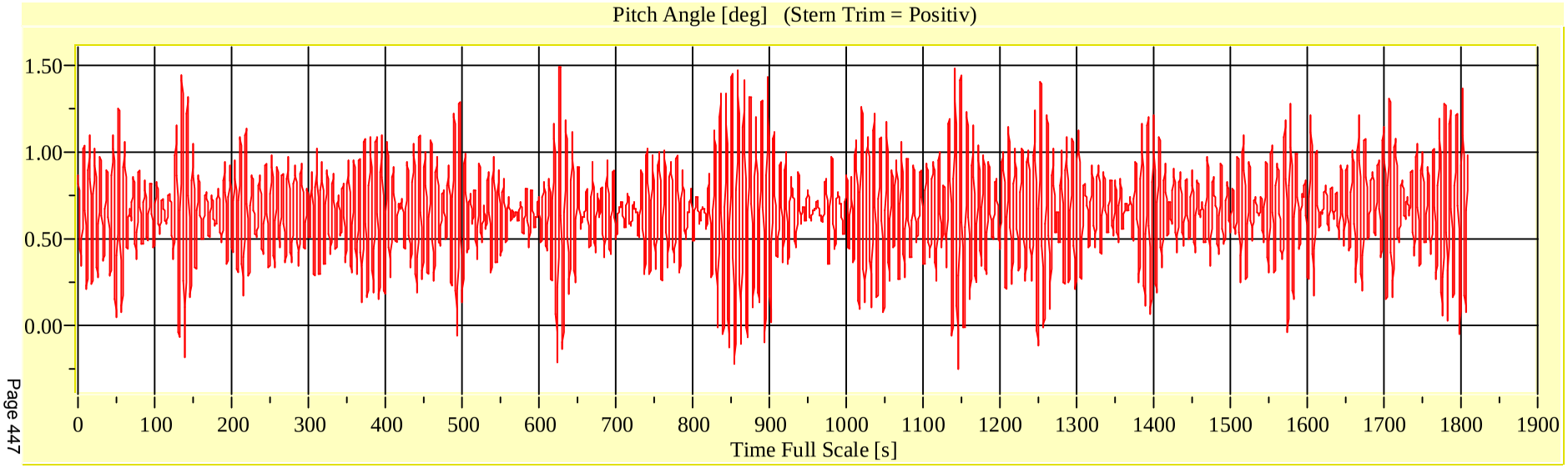


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

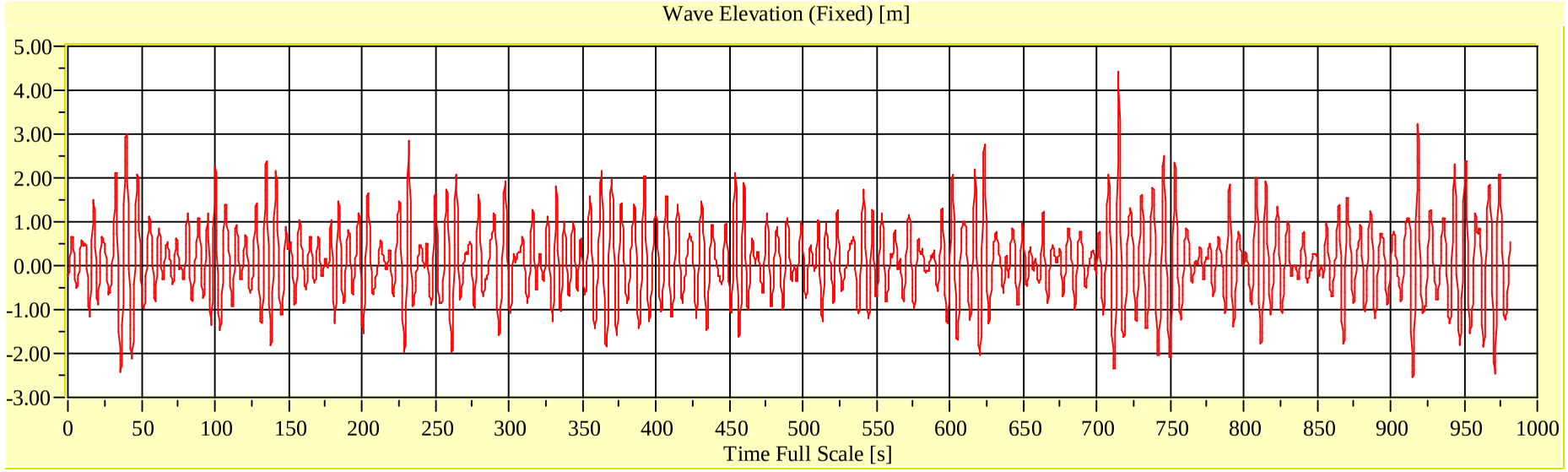


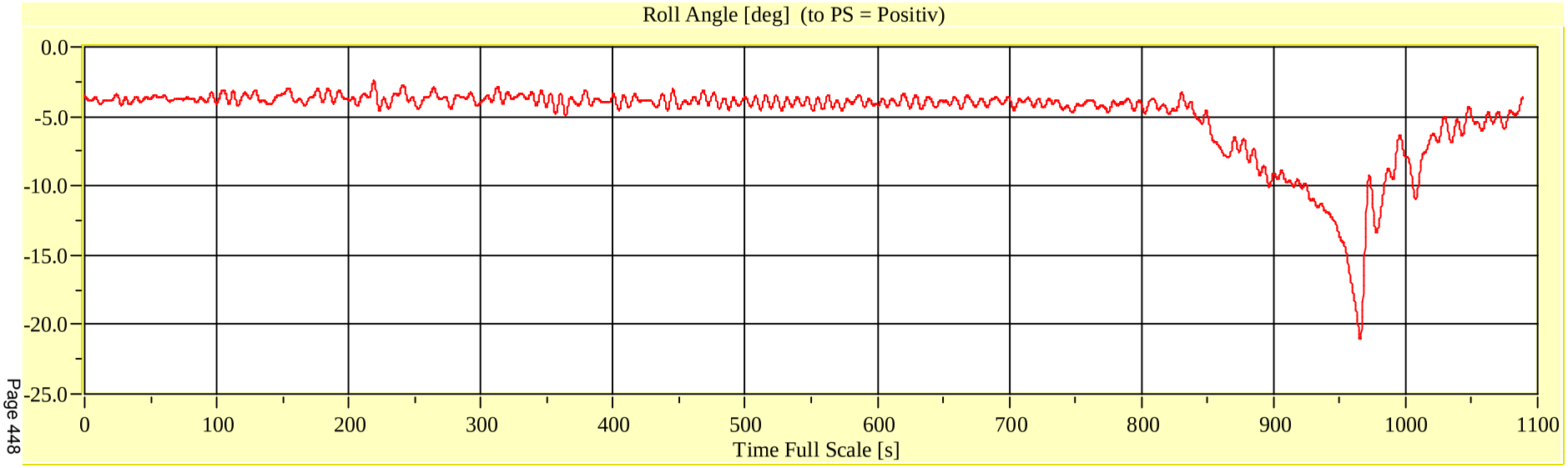


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

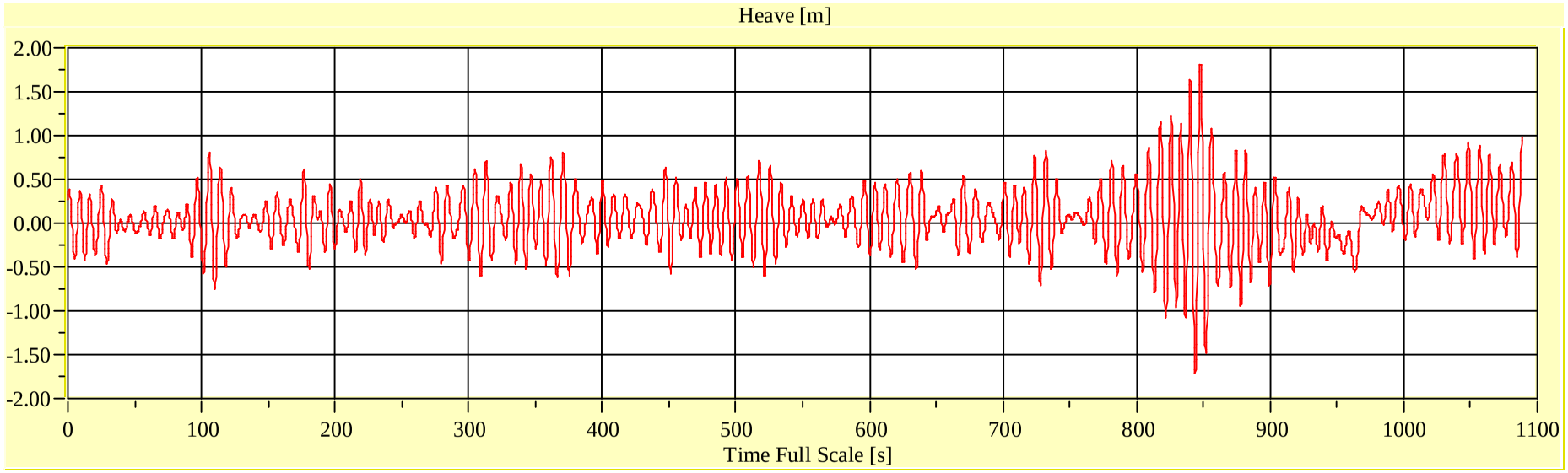


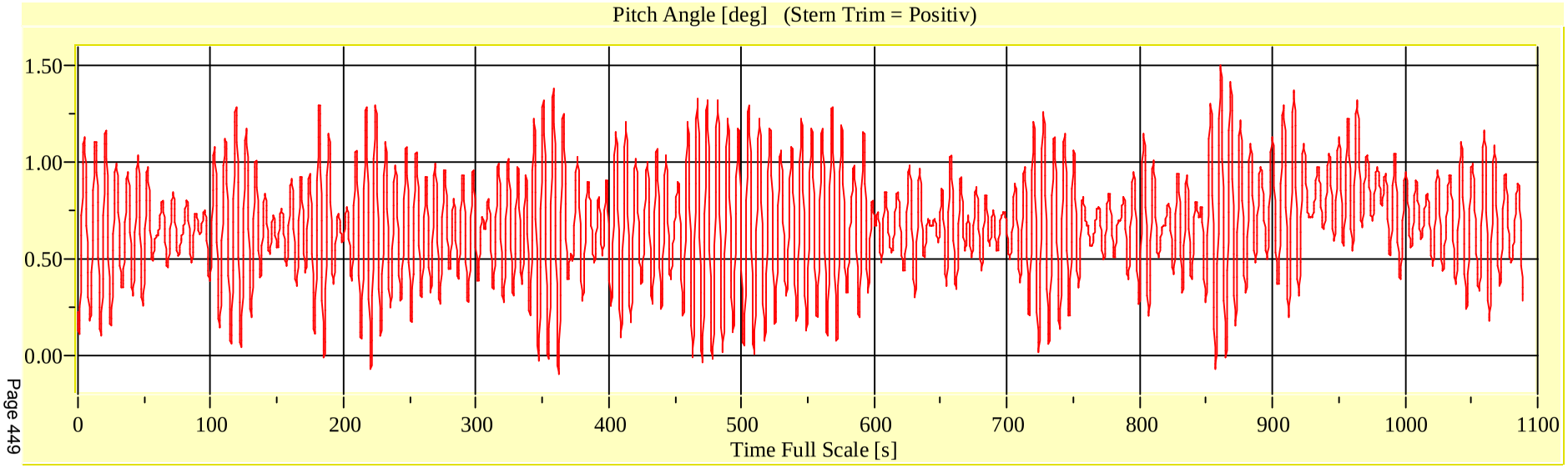


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

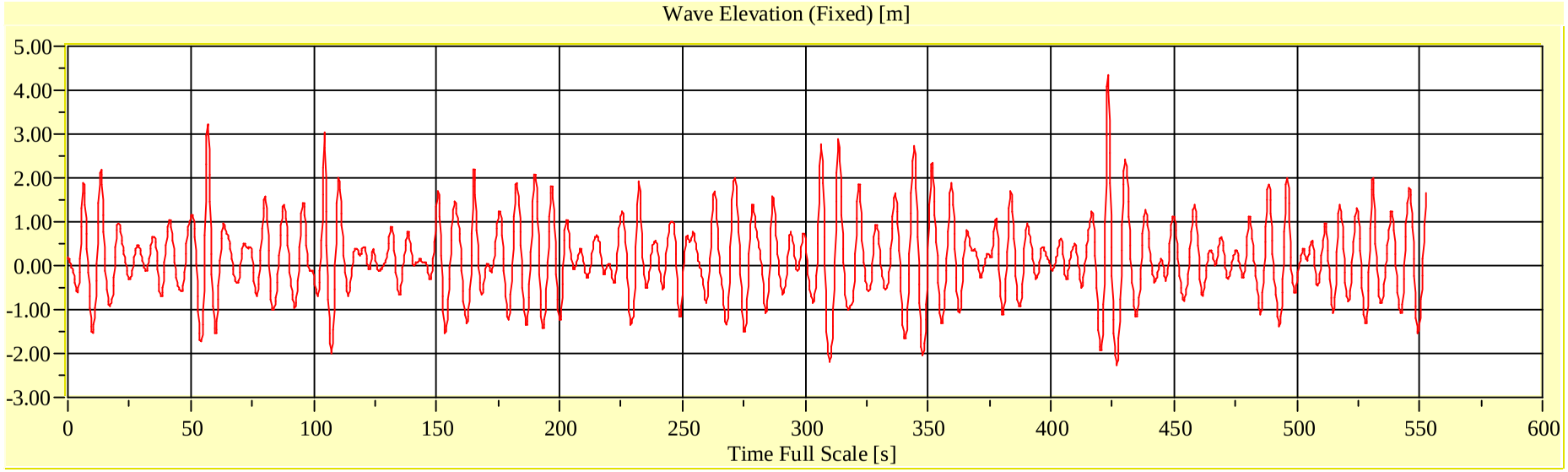


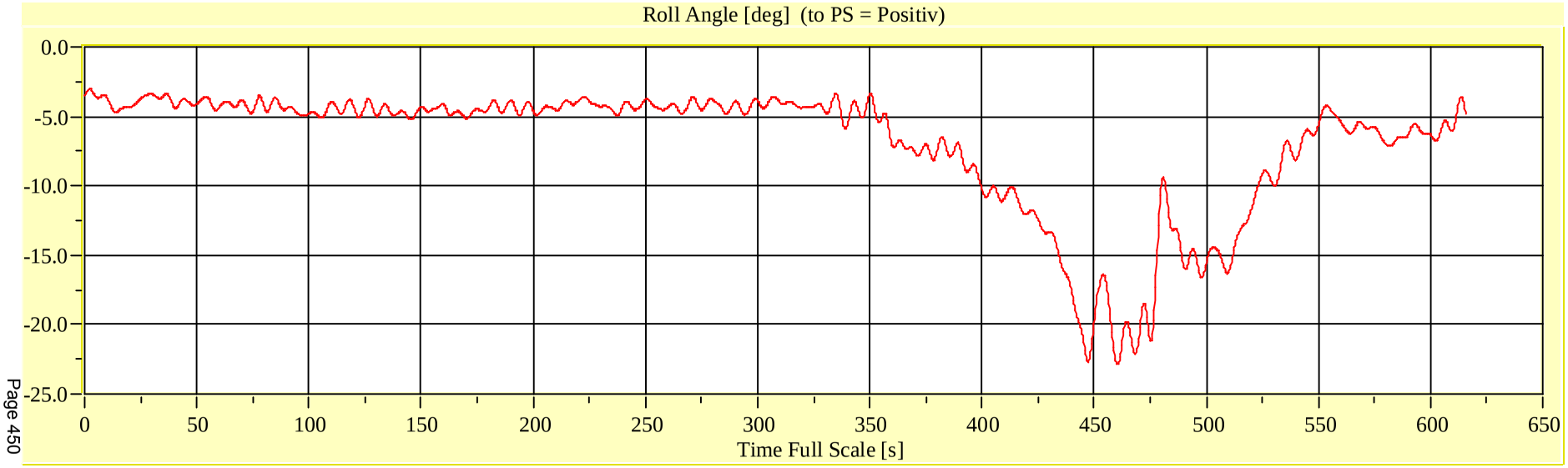


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

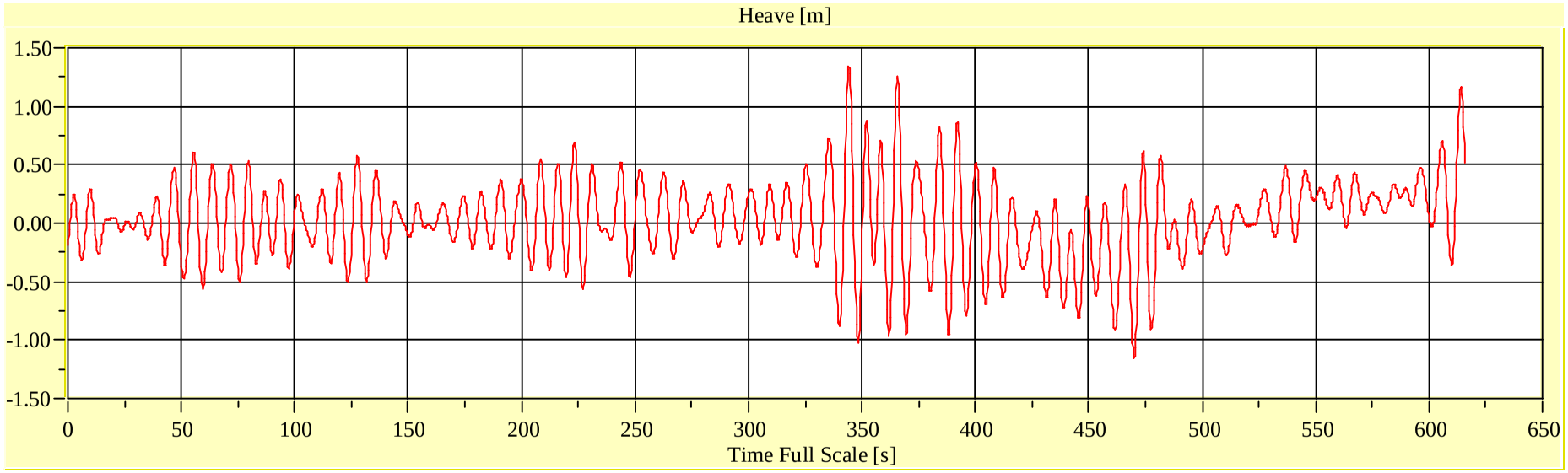


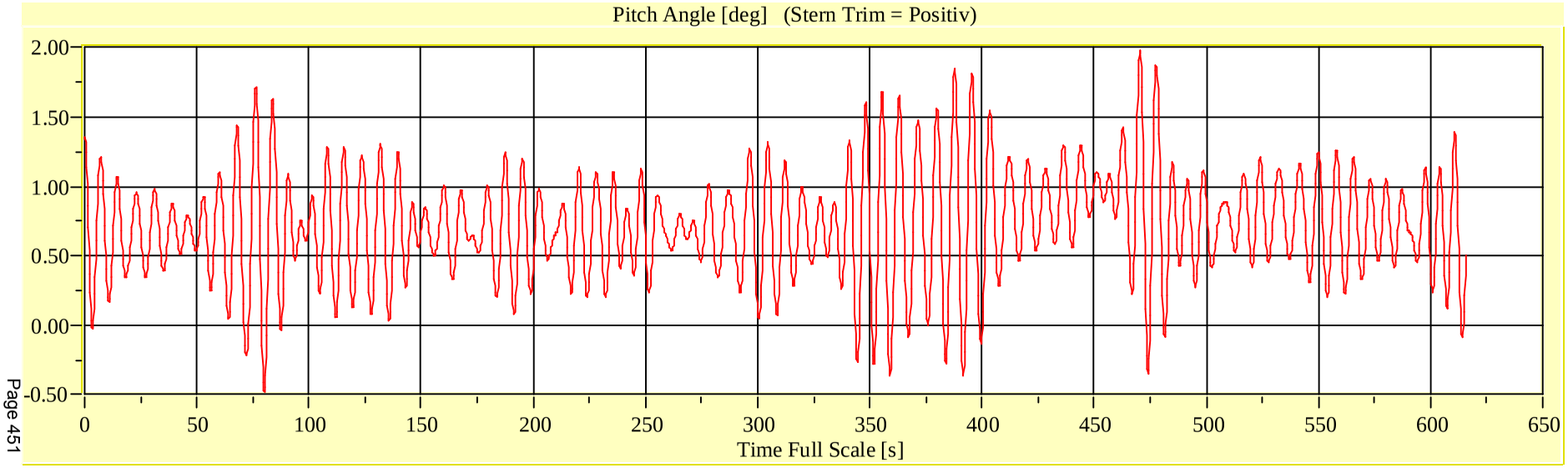


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

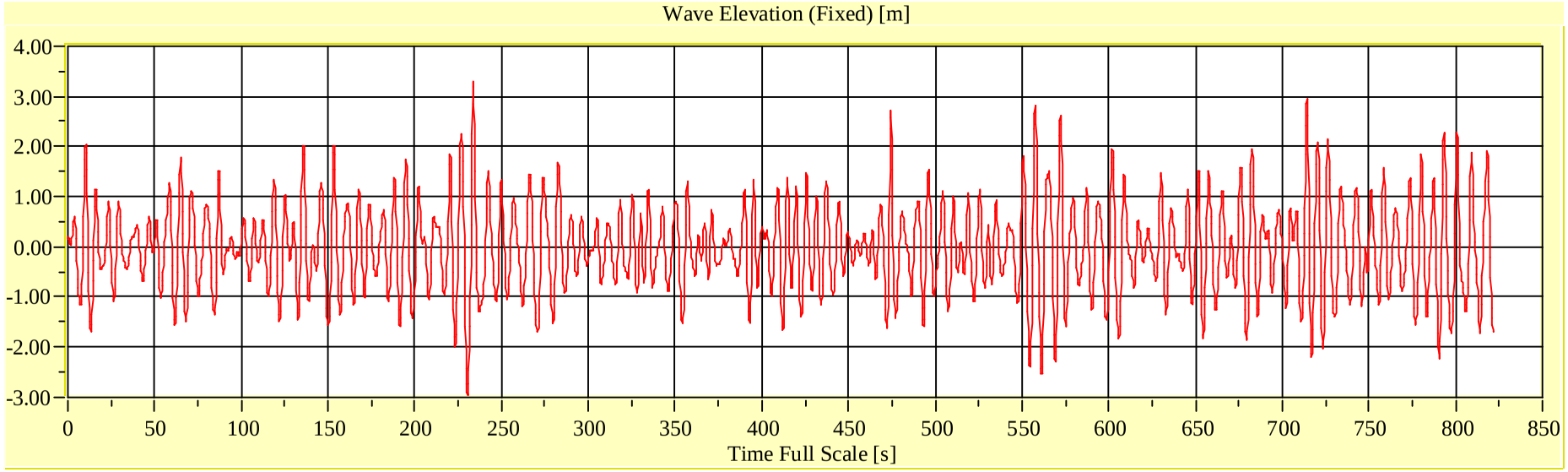


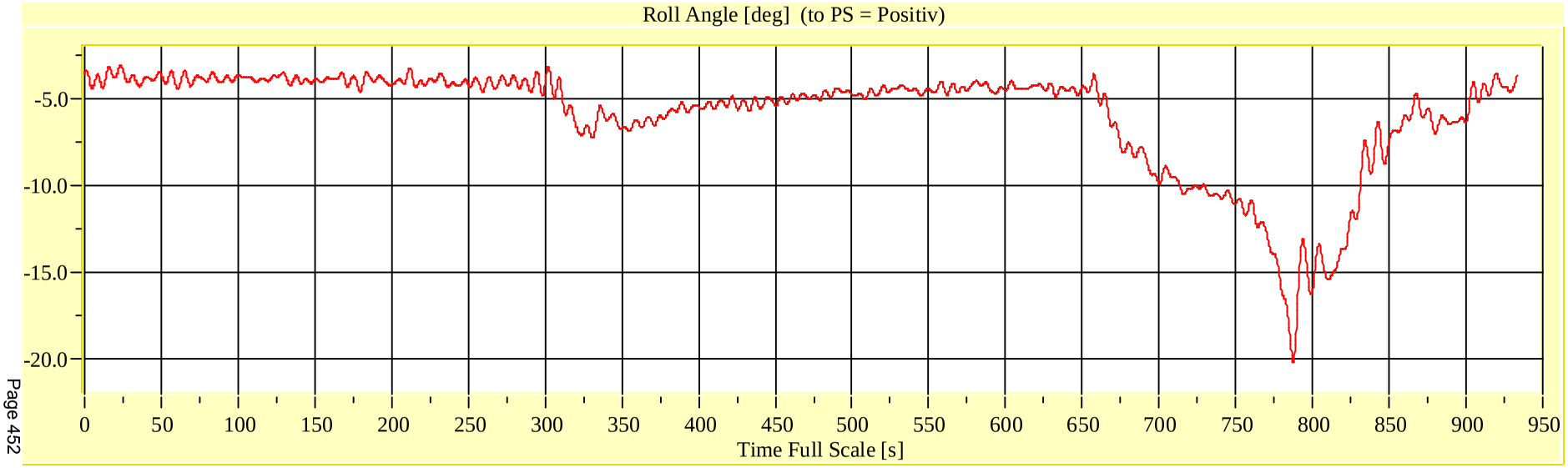


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

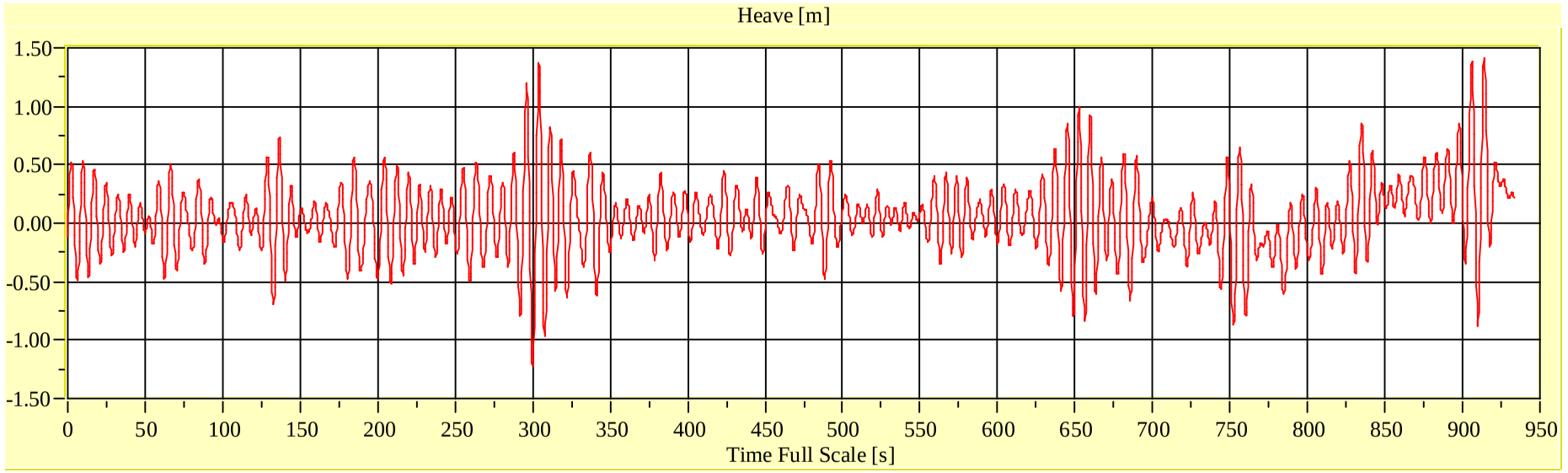


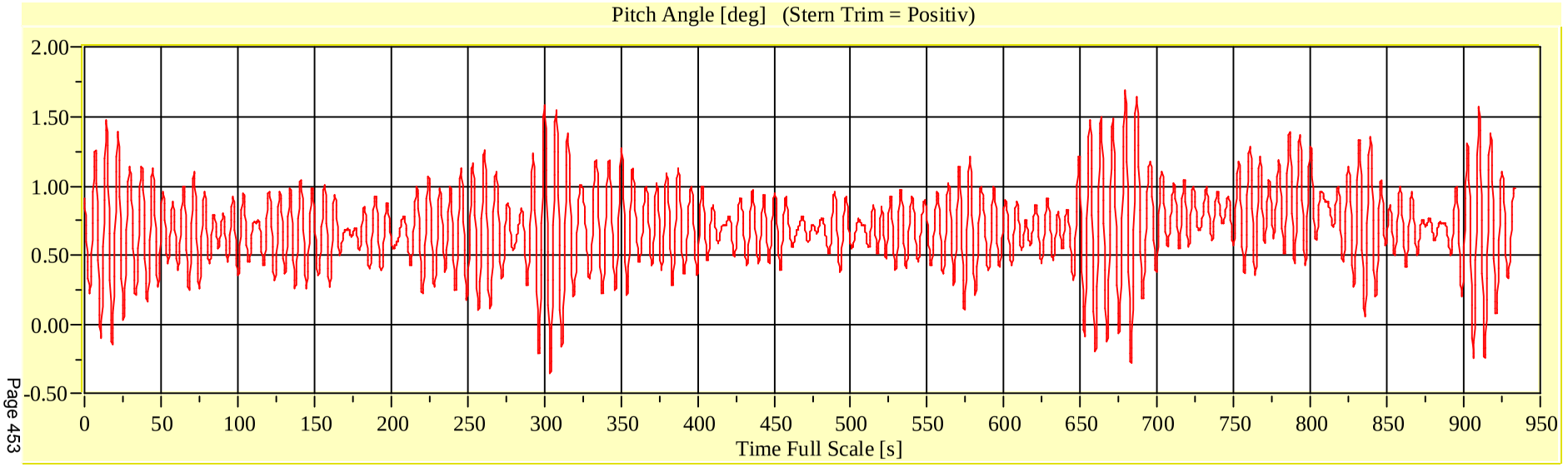


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29718-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

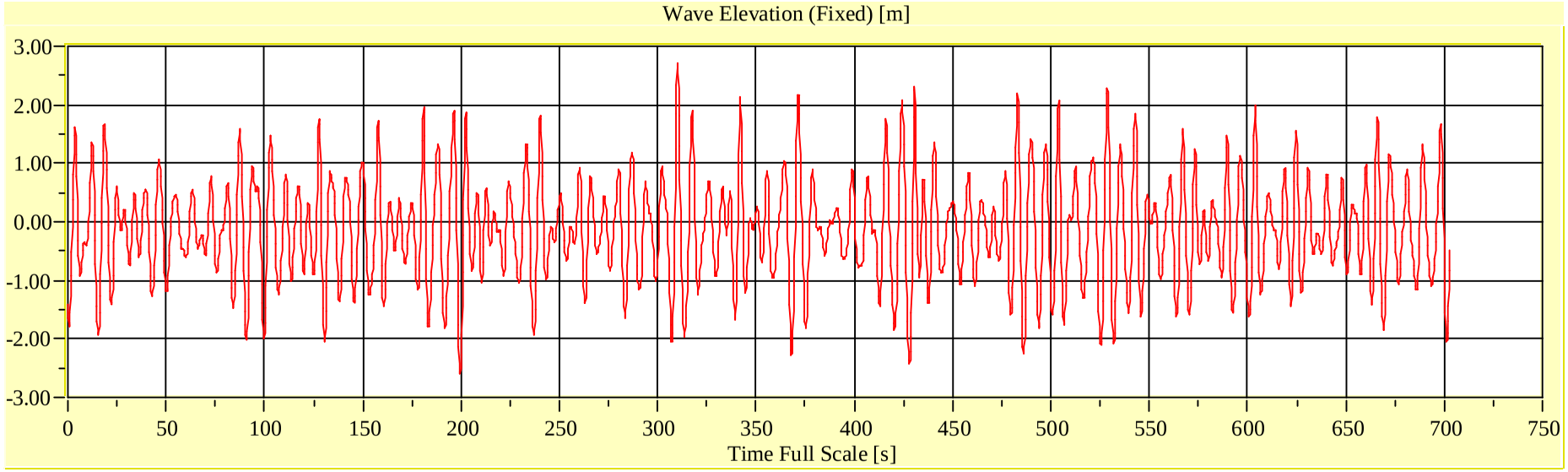


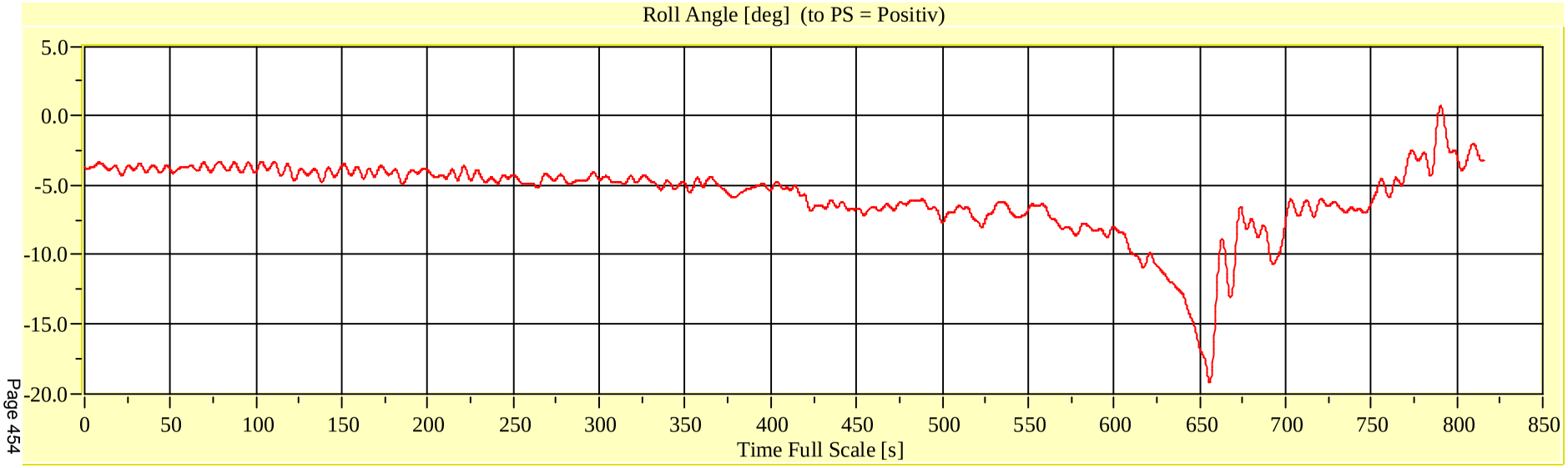


Date: 16.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3



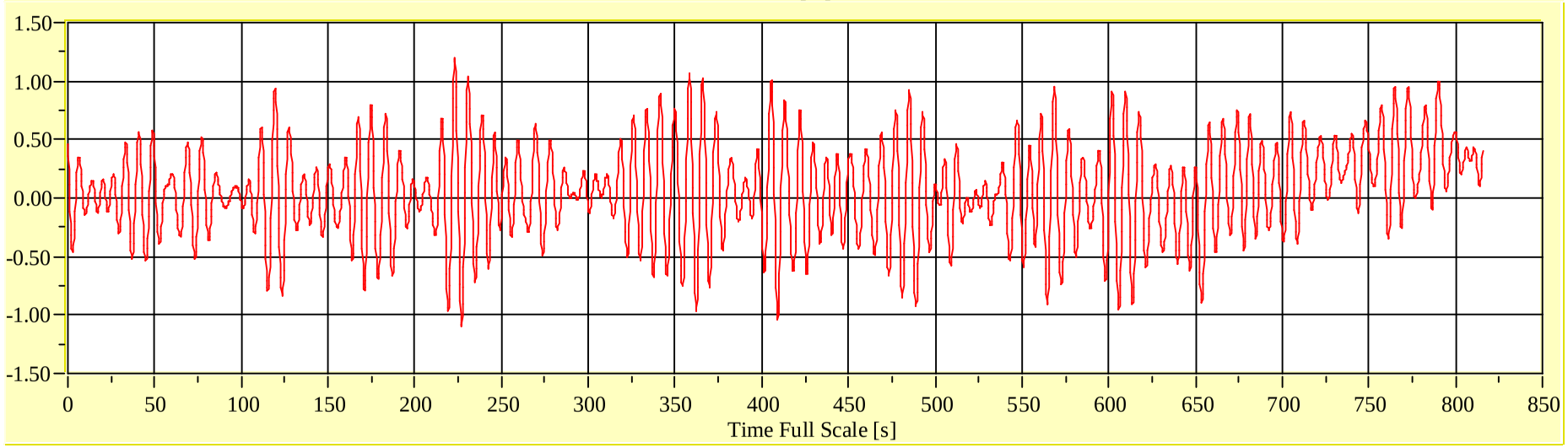


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

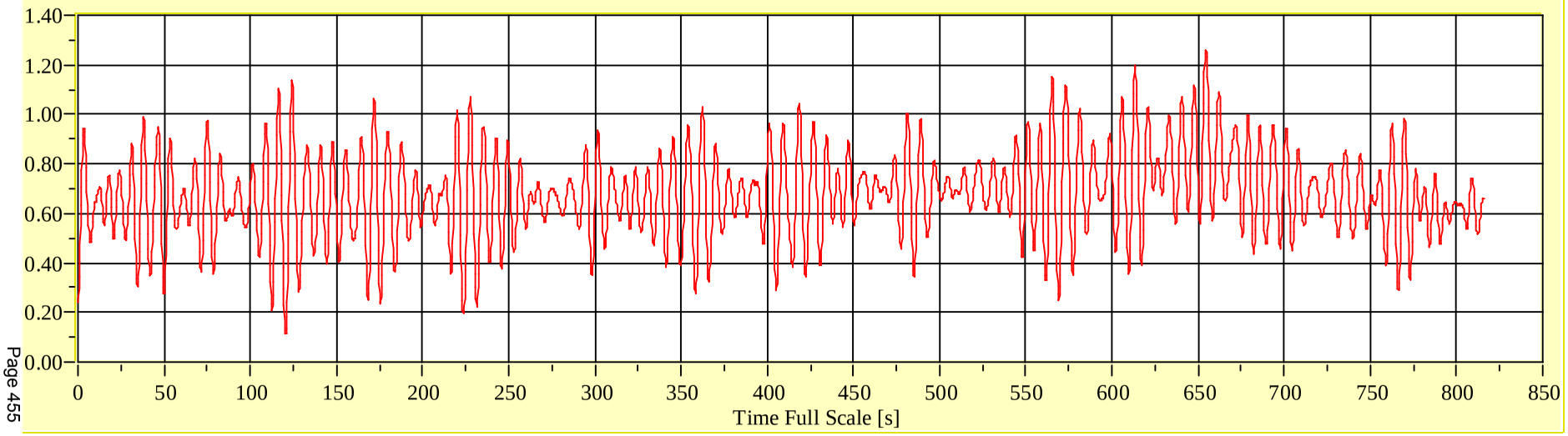
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

Heave [m]



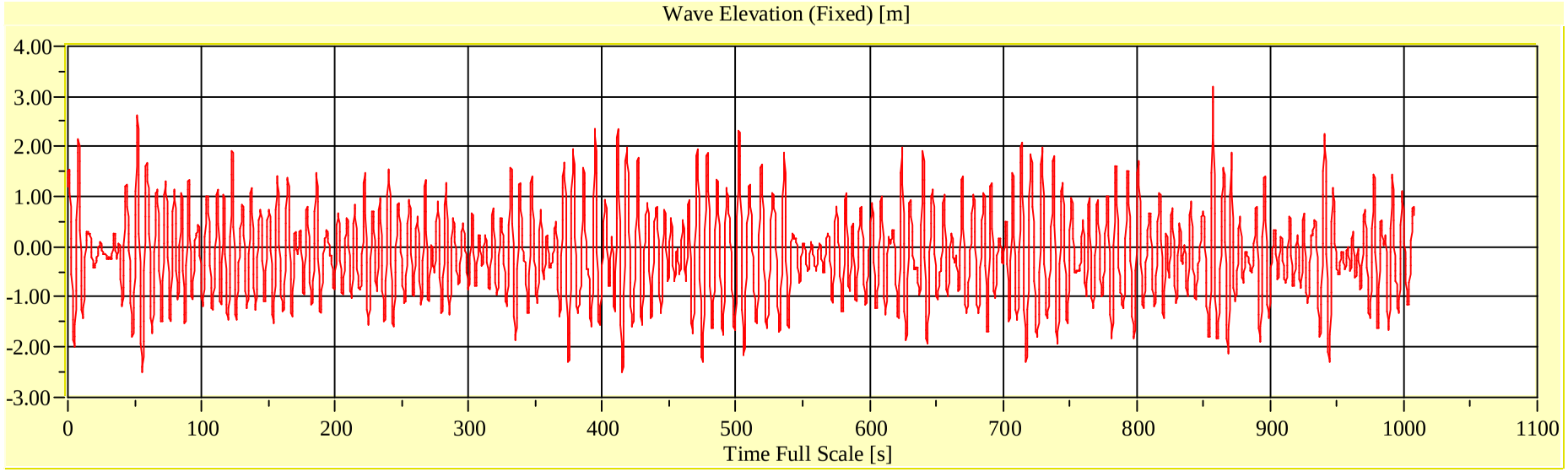
Pitch Angle [deg] (Stern Trim = Positiv)

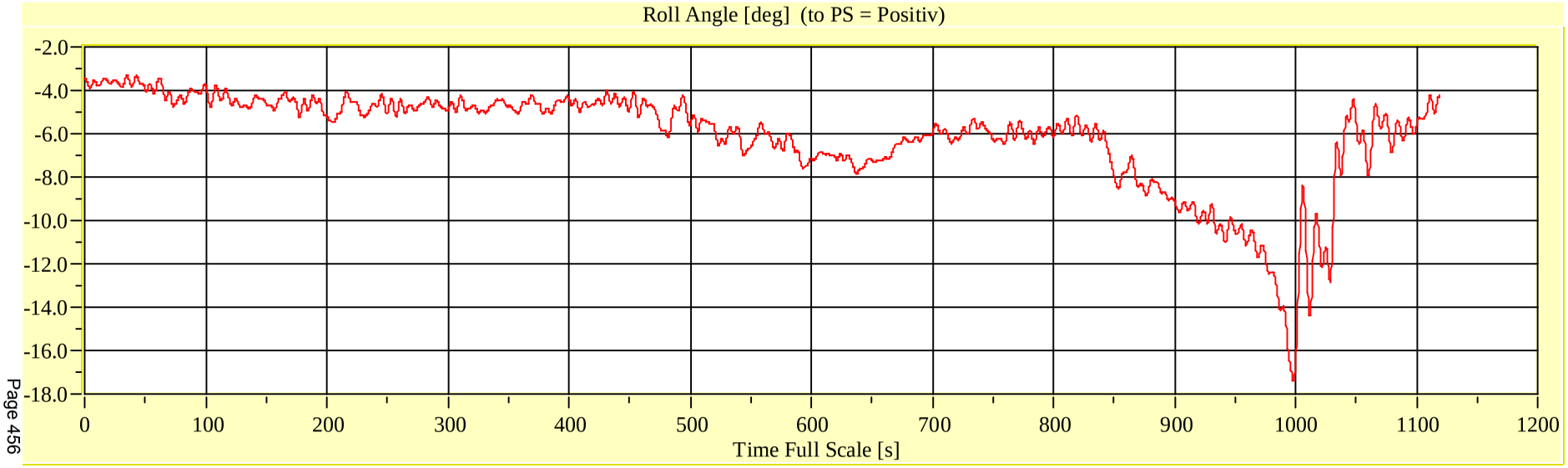


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

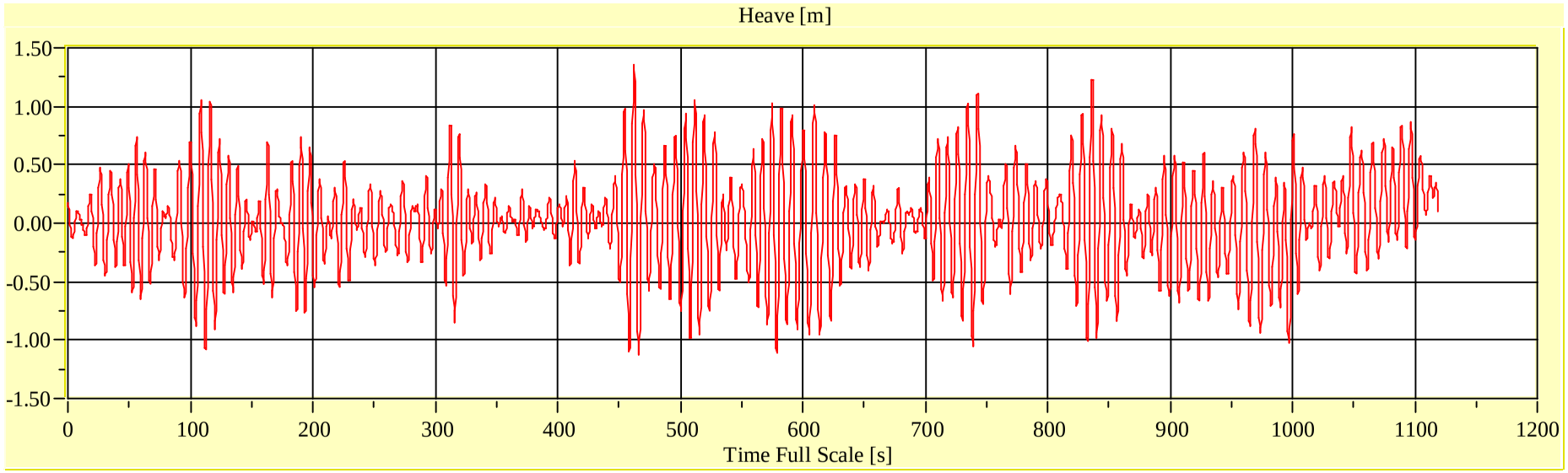


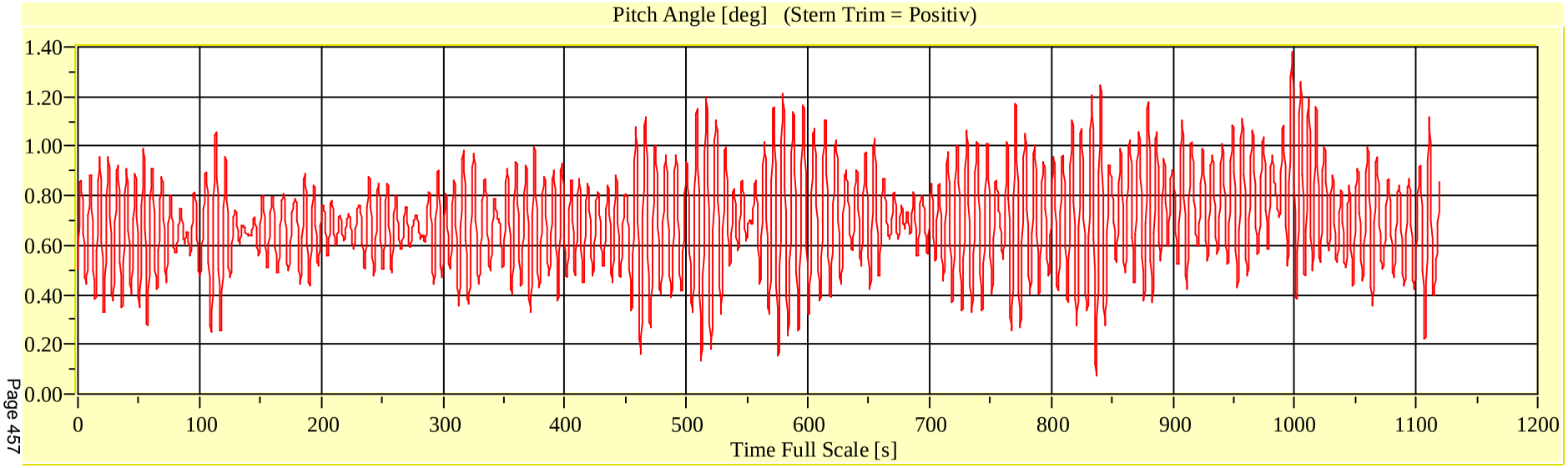


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

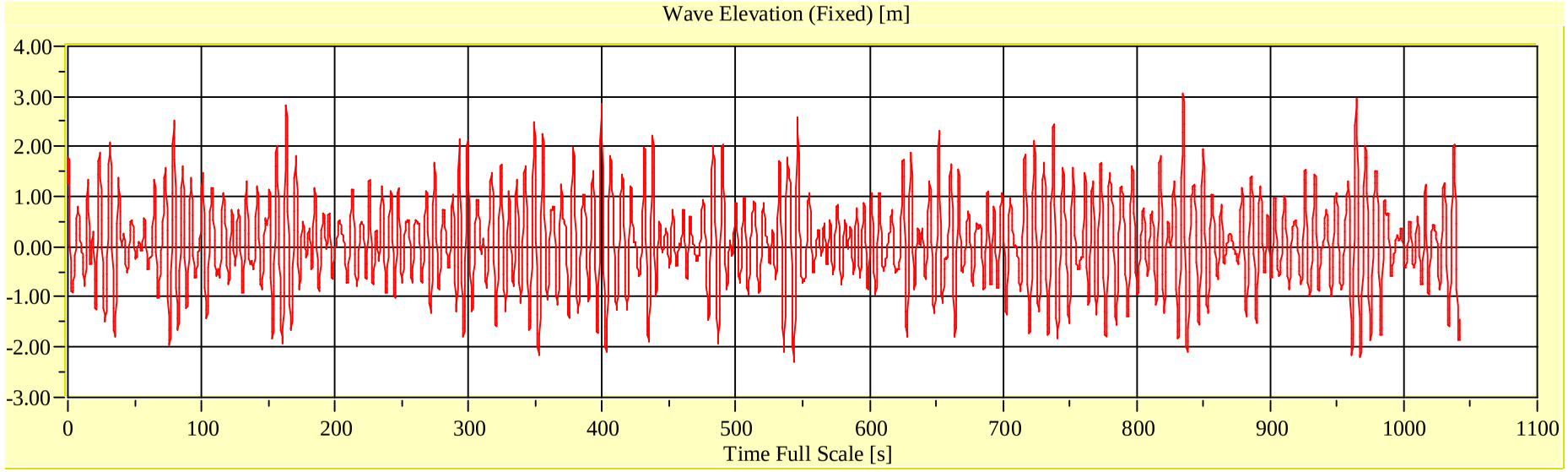


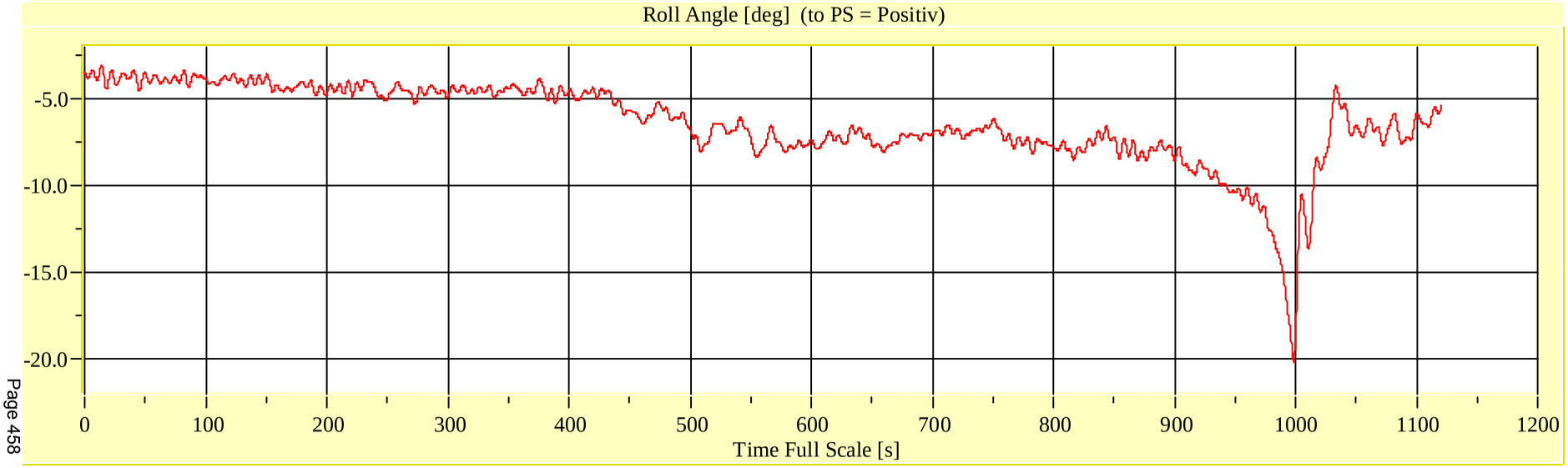


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

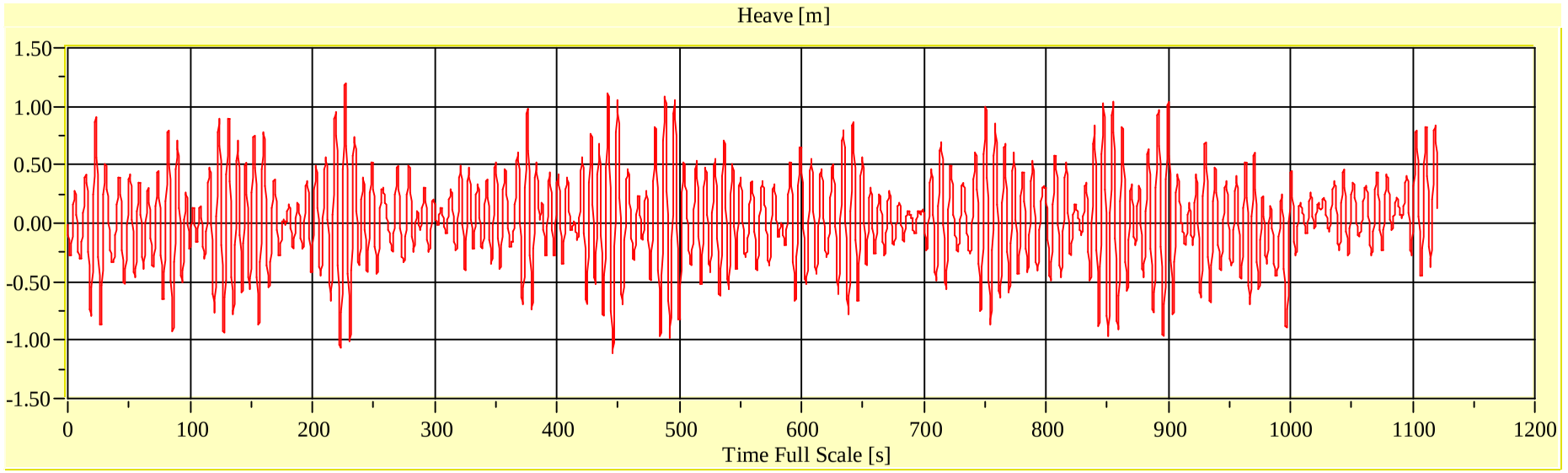


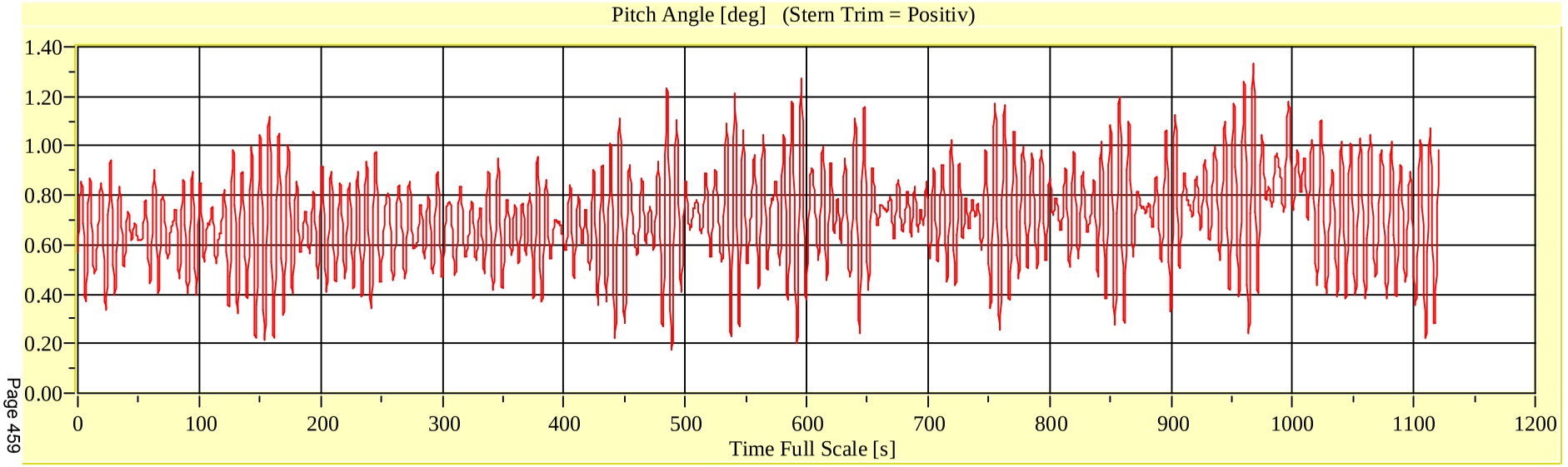


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

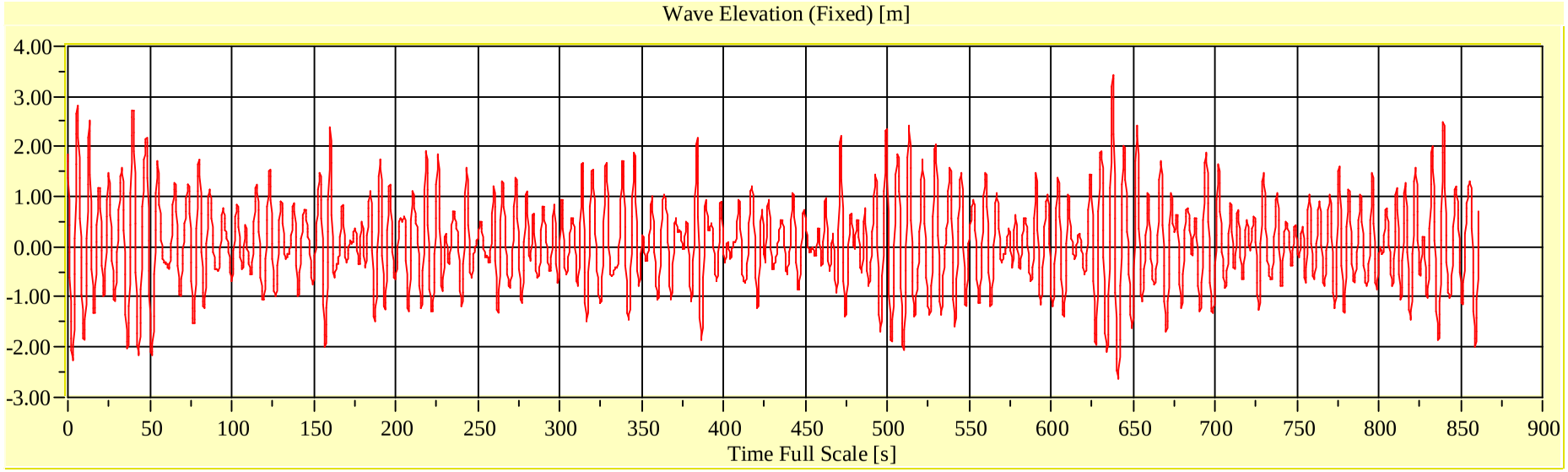


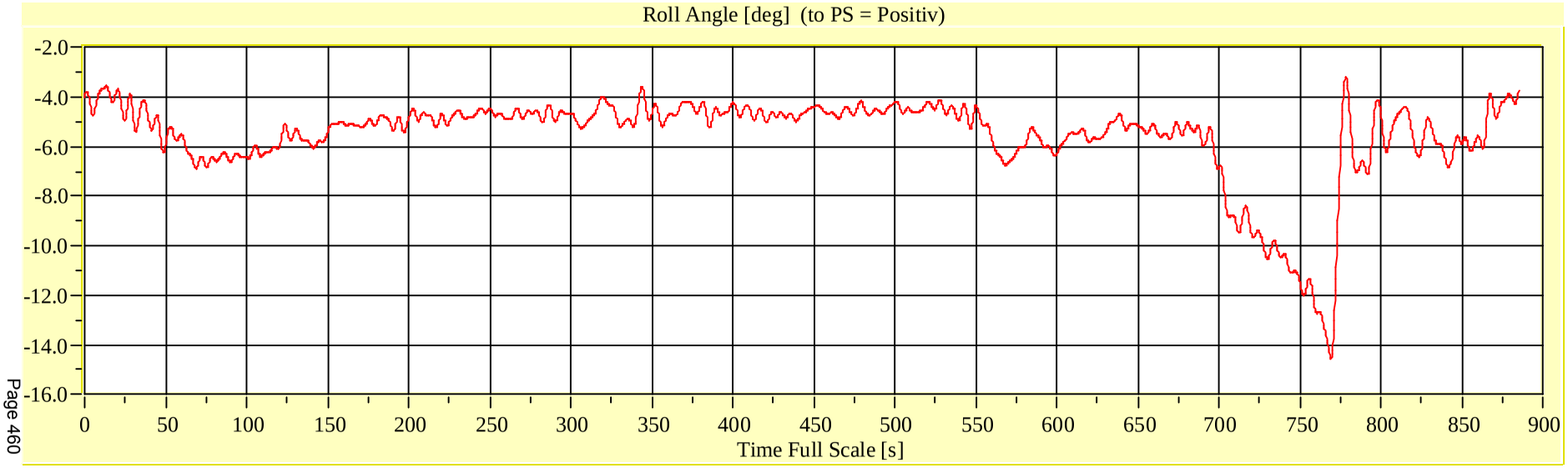


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3



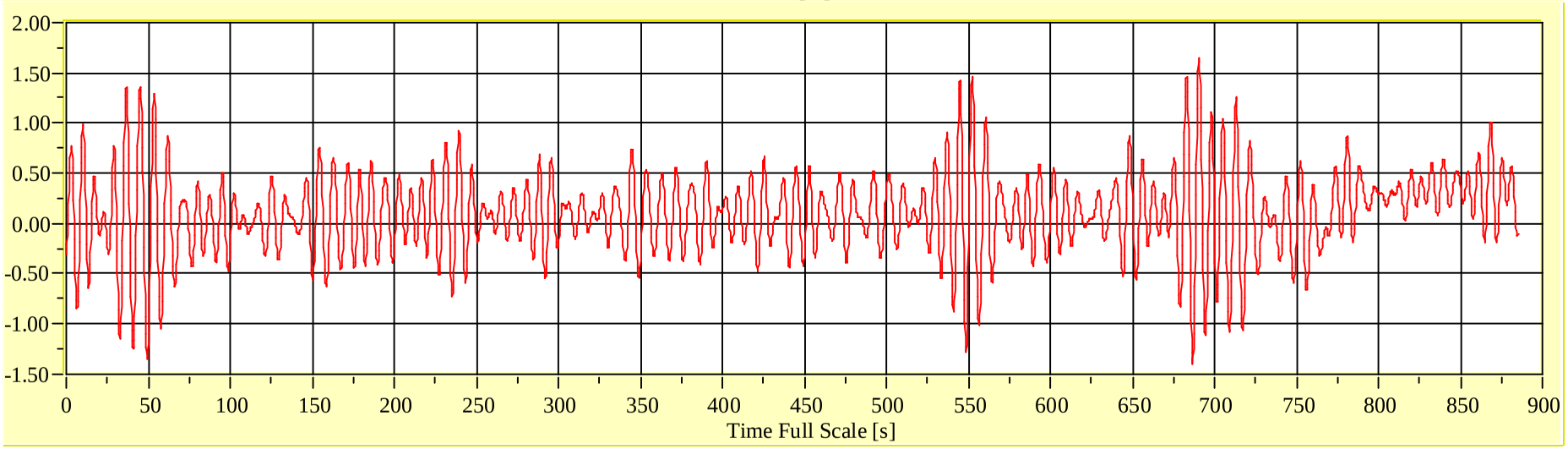


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

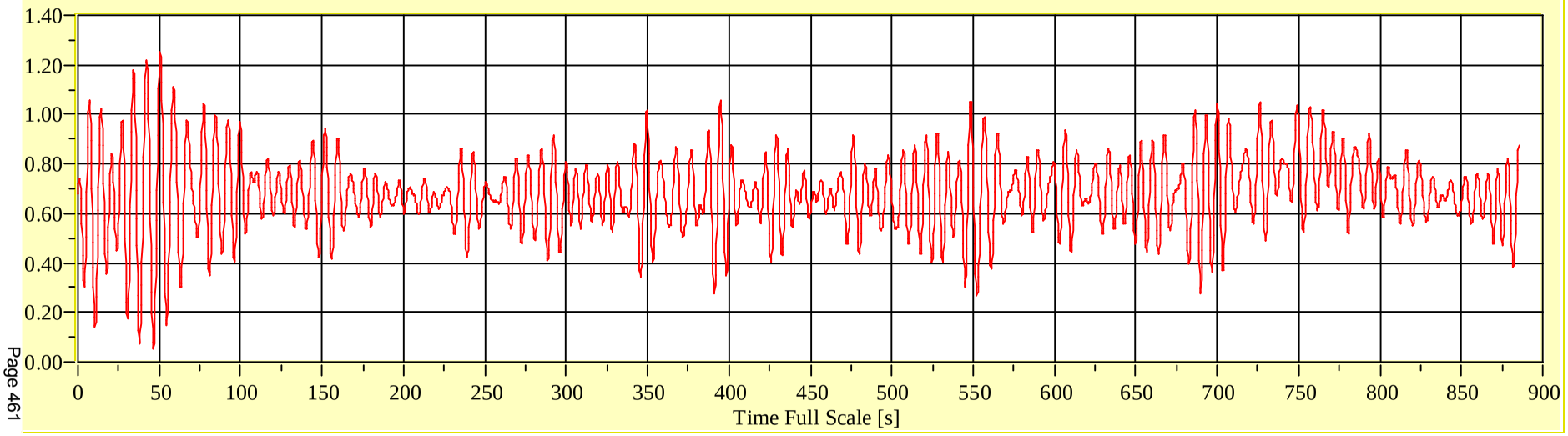
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

Heave [m]



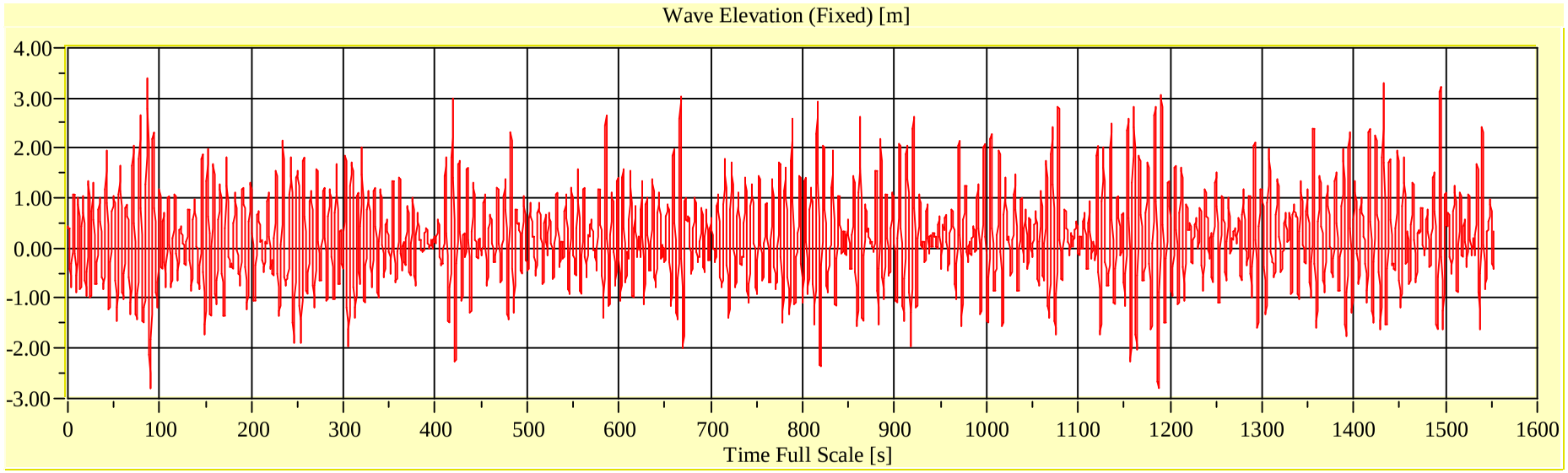
Pitch Angle [deg] (Stern Trim = Positiv)

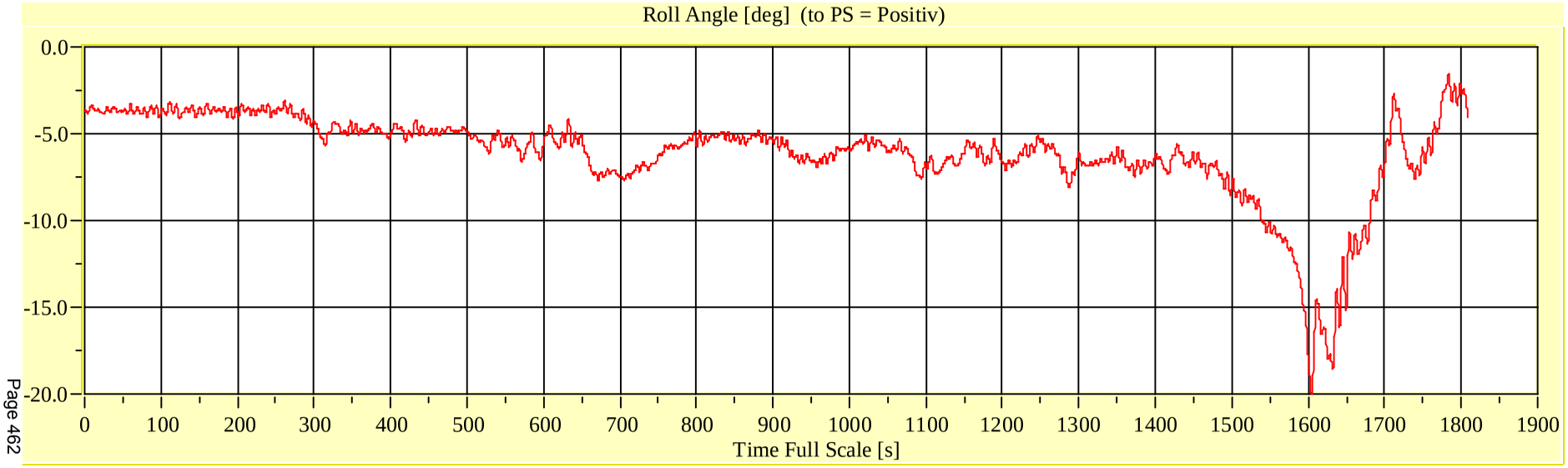


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

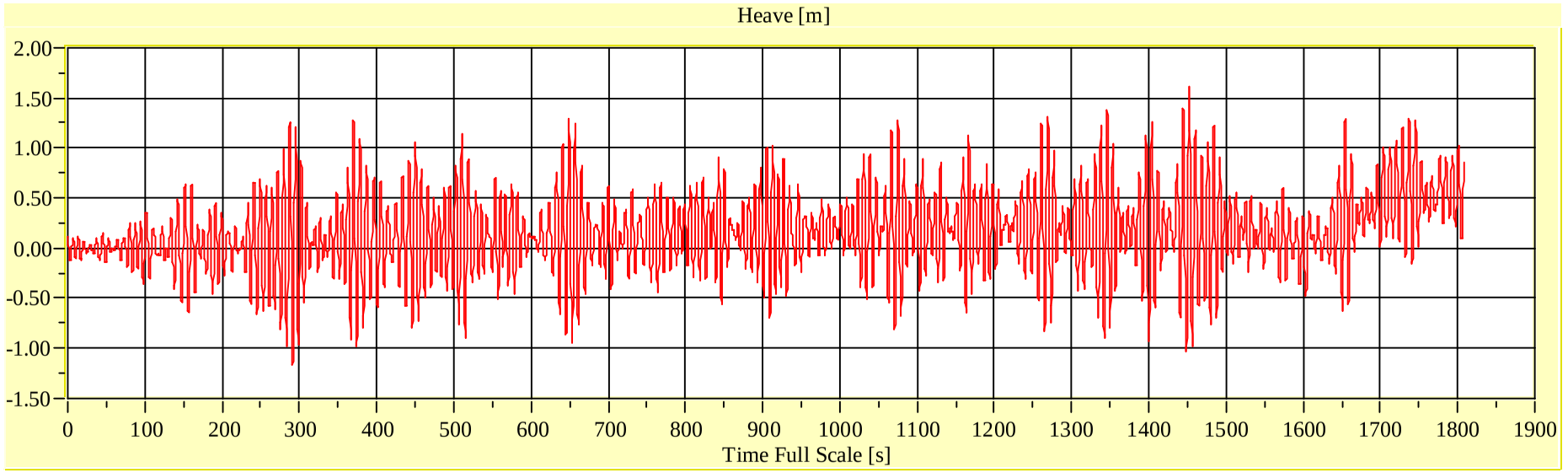


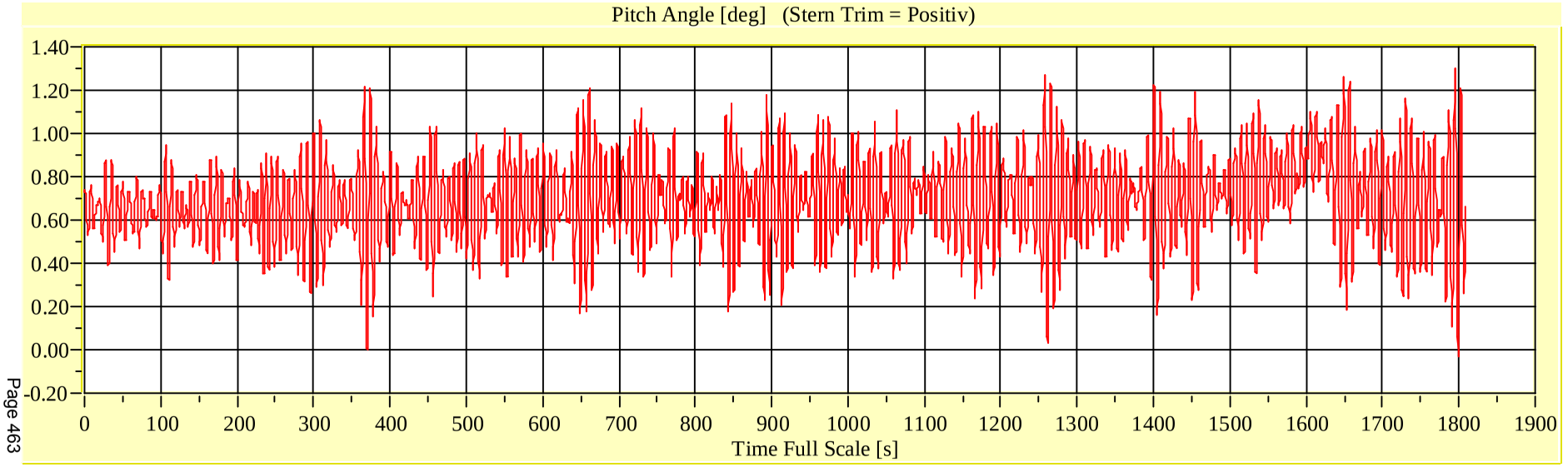


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

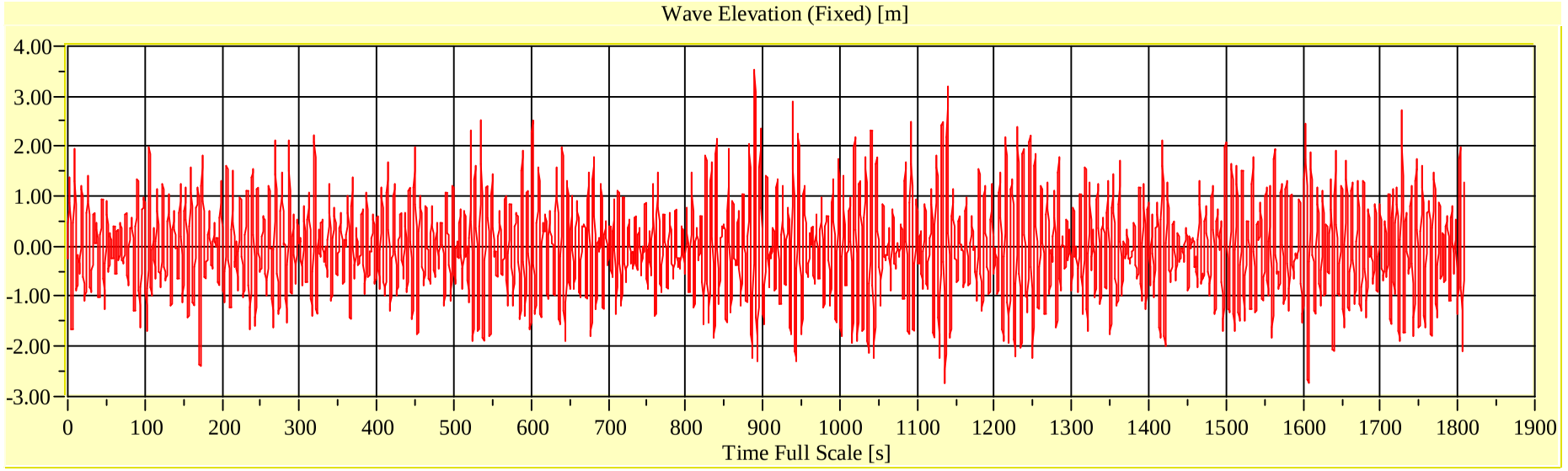


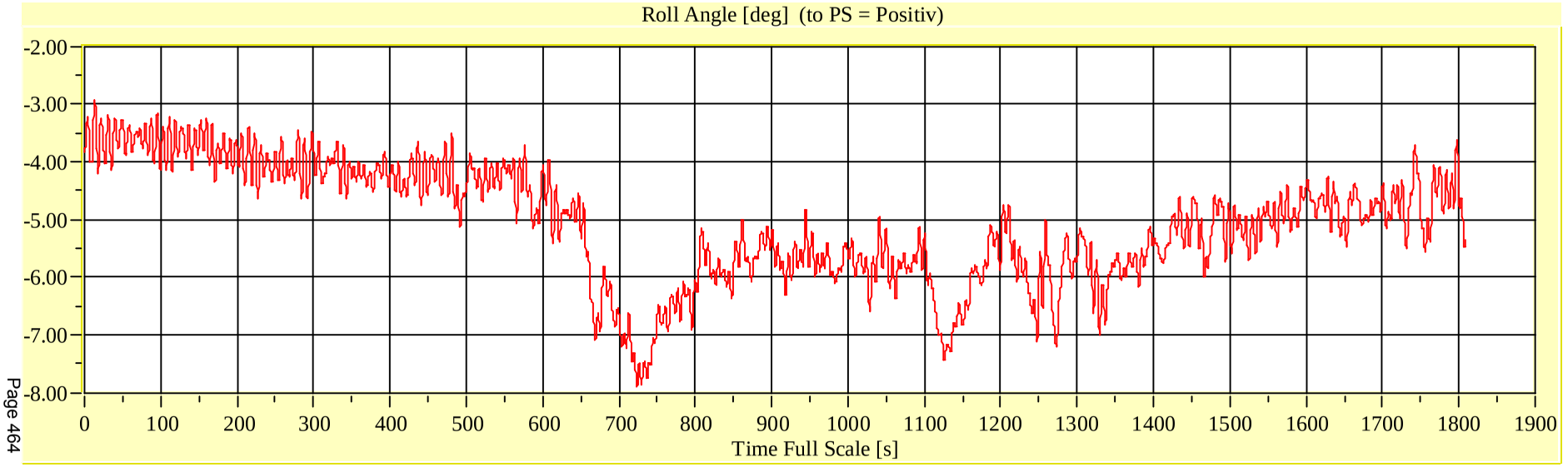


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

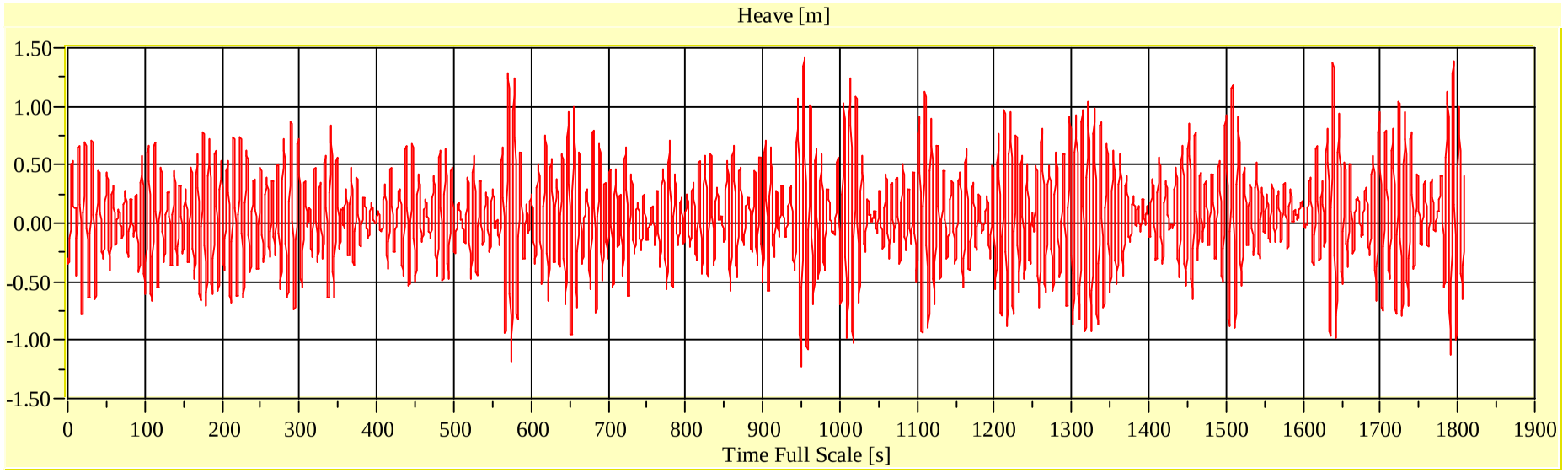


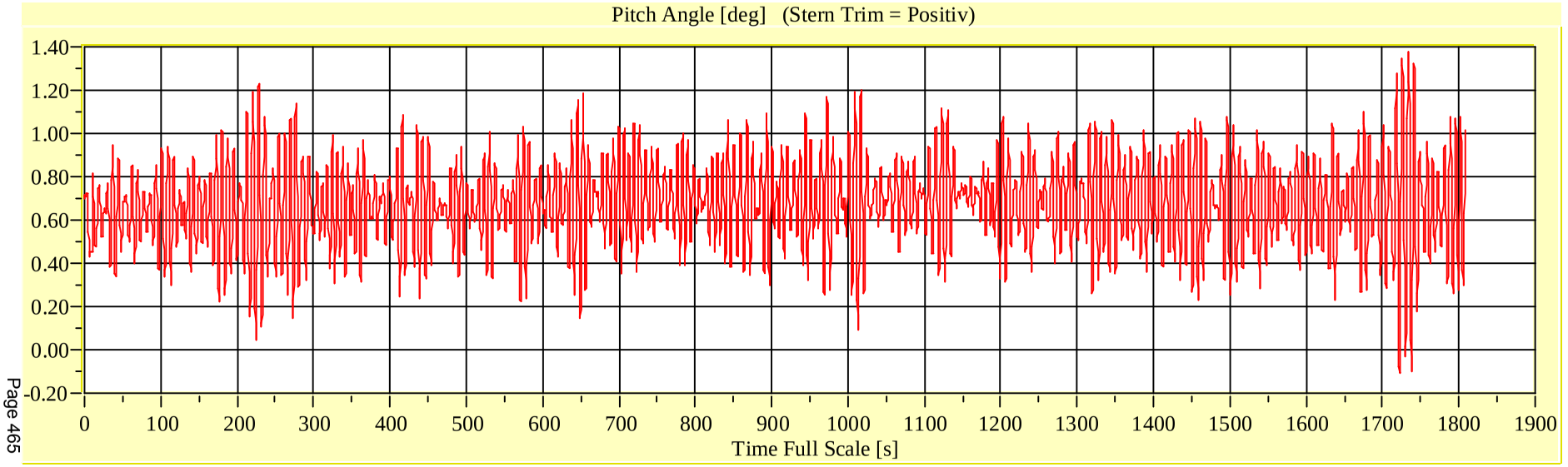


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

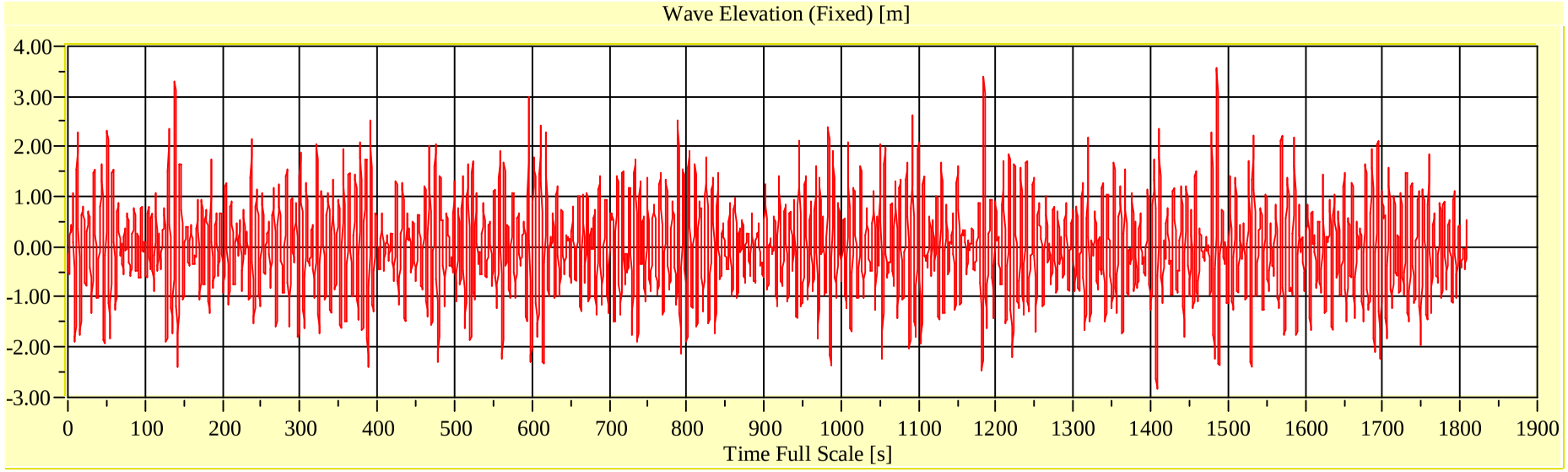


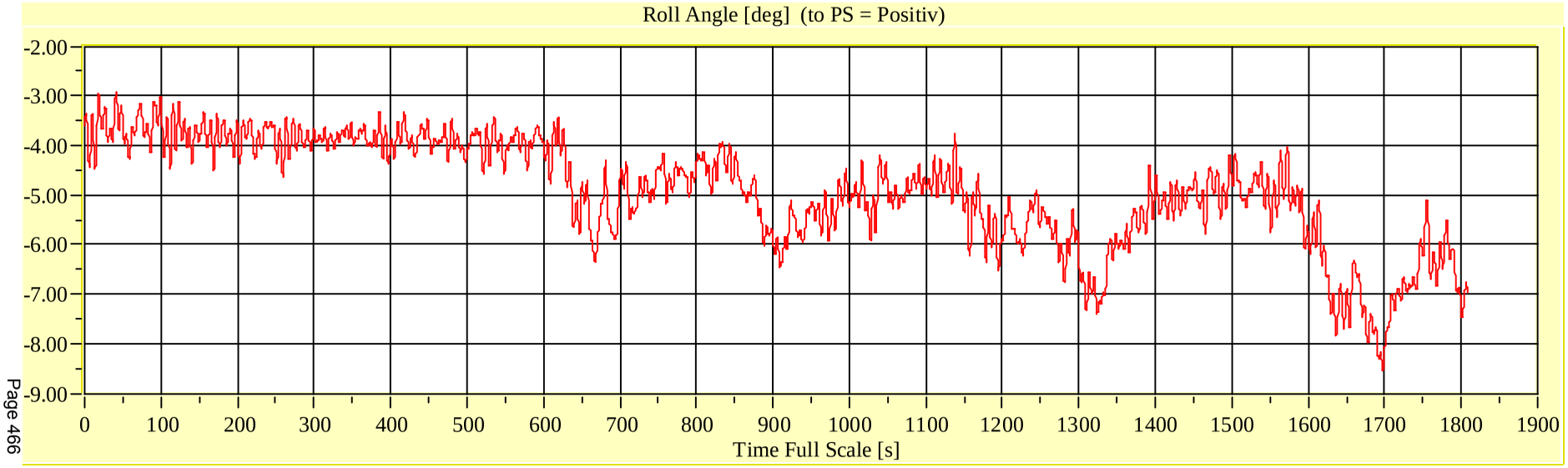


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

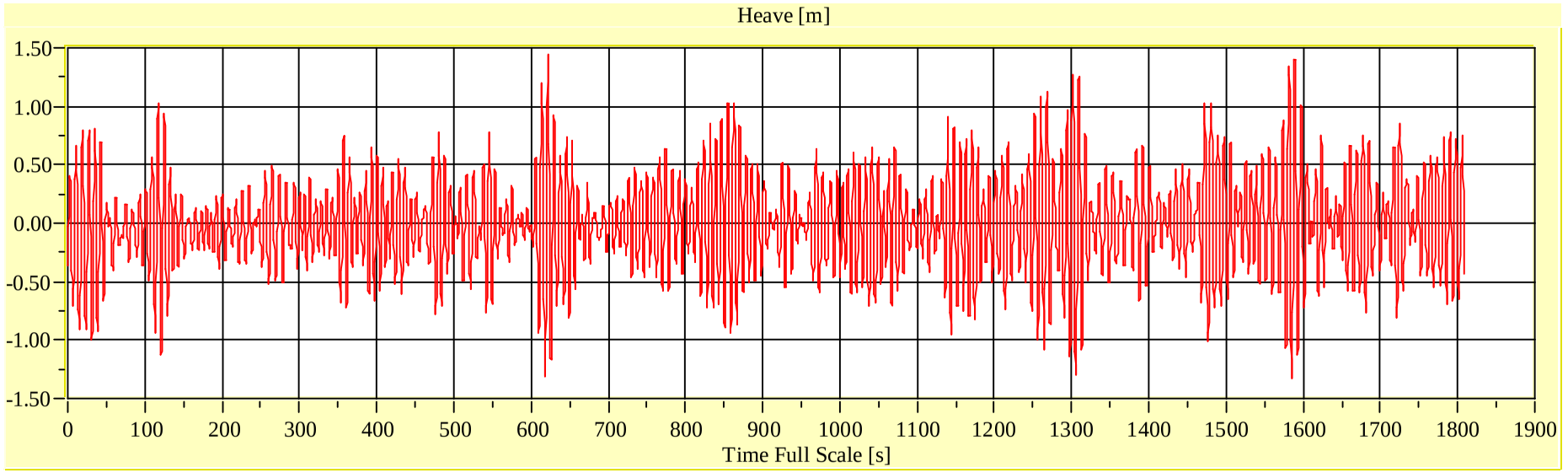


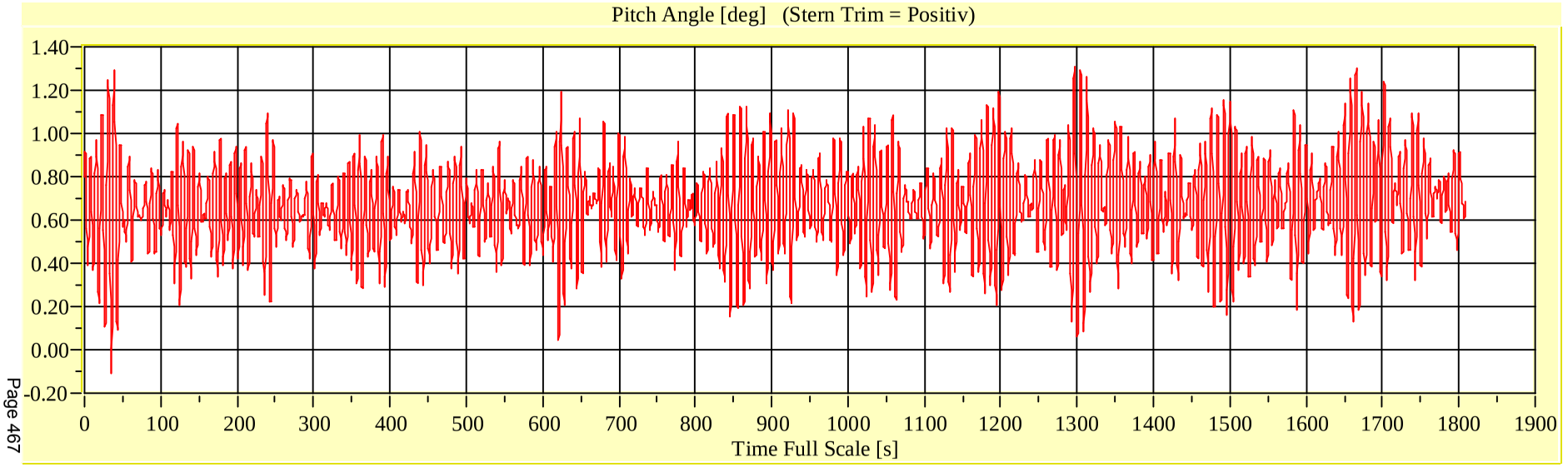


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

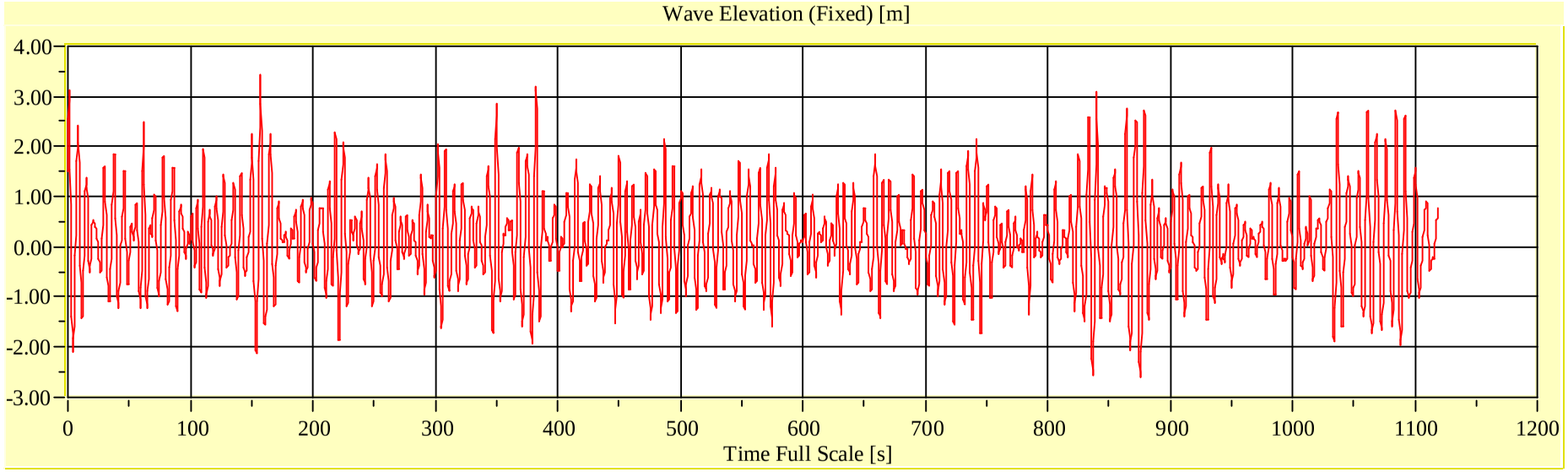


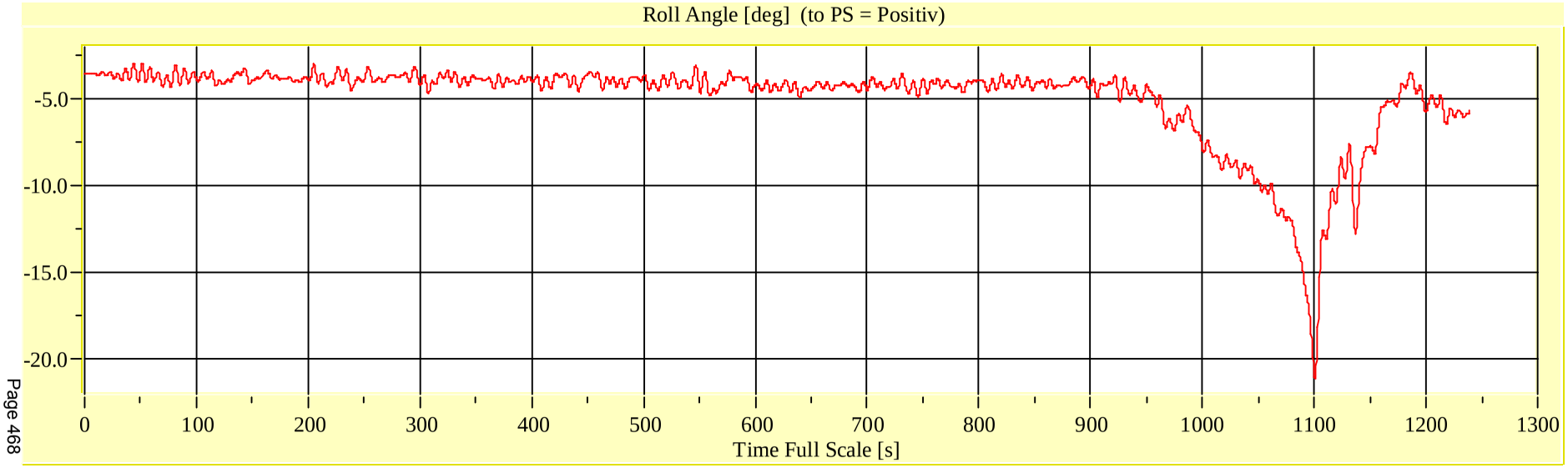


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

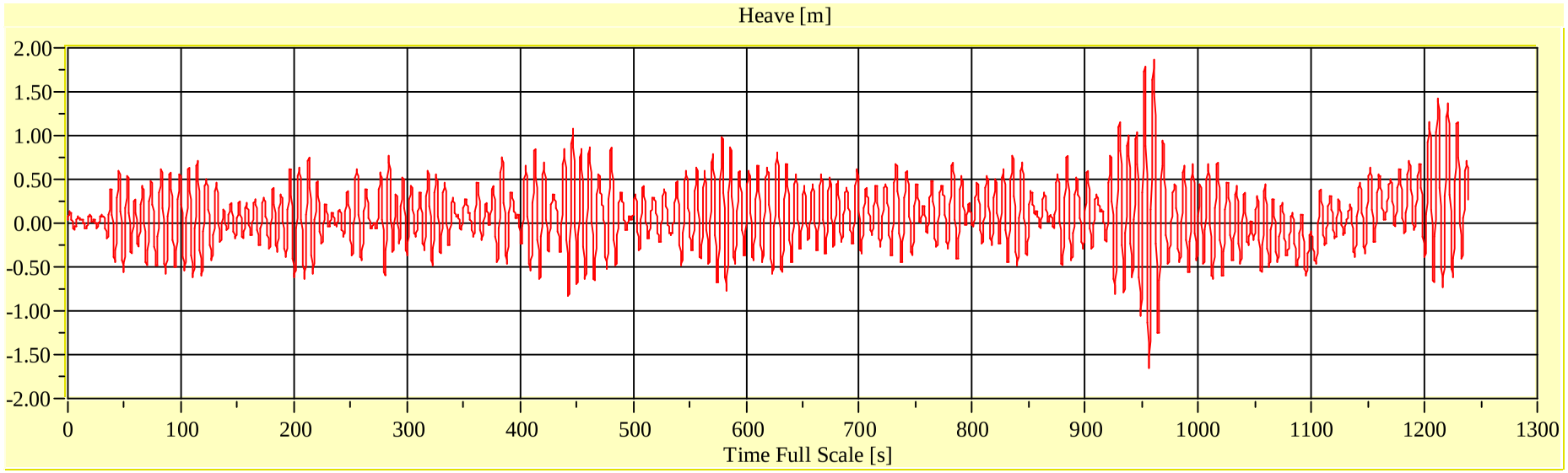


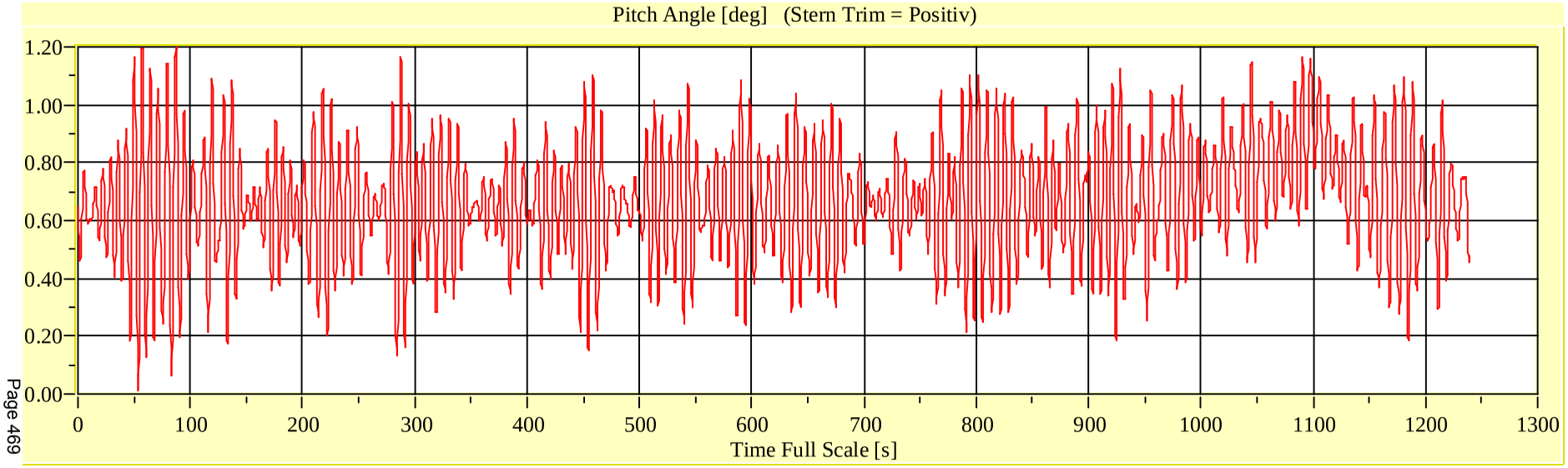


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

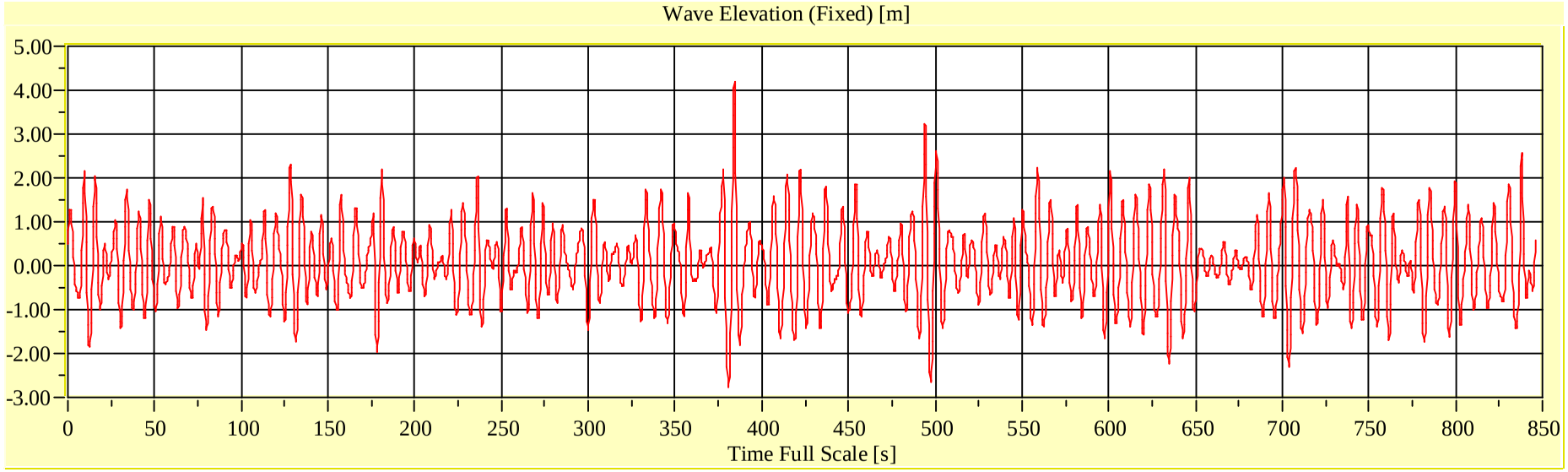


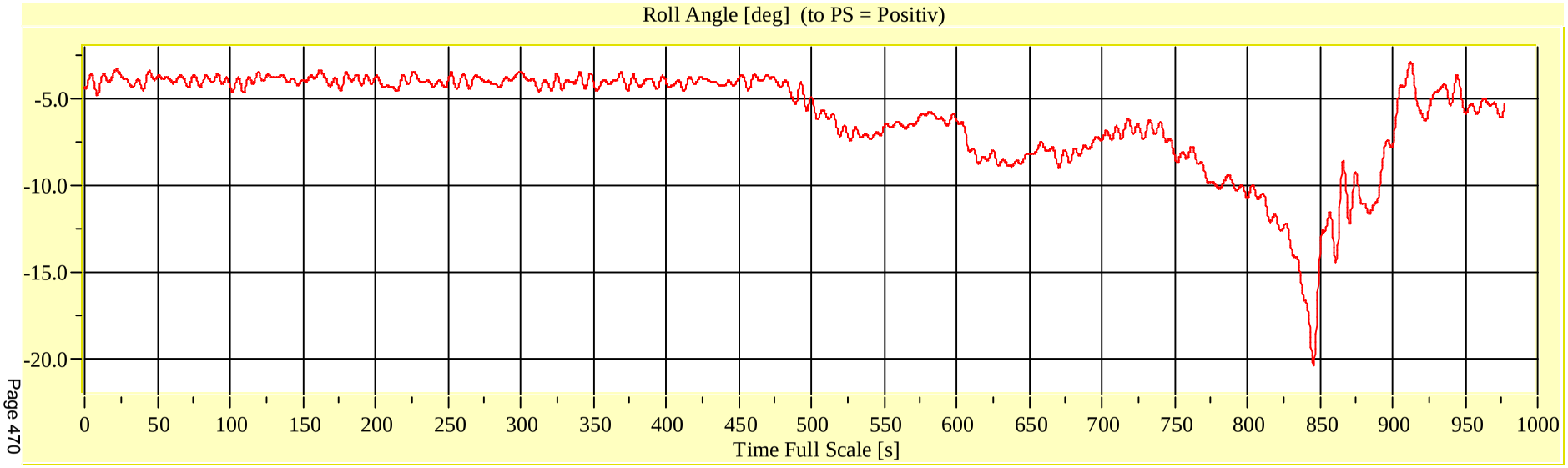


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

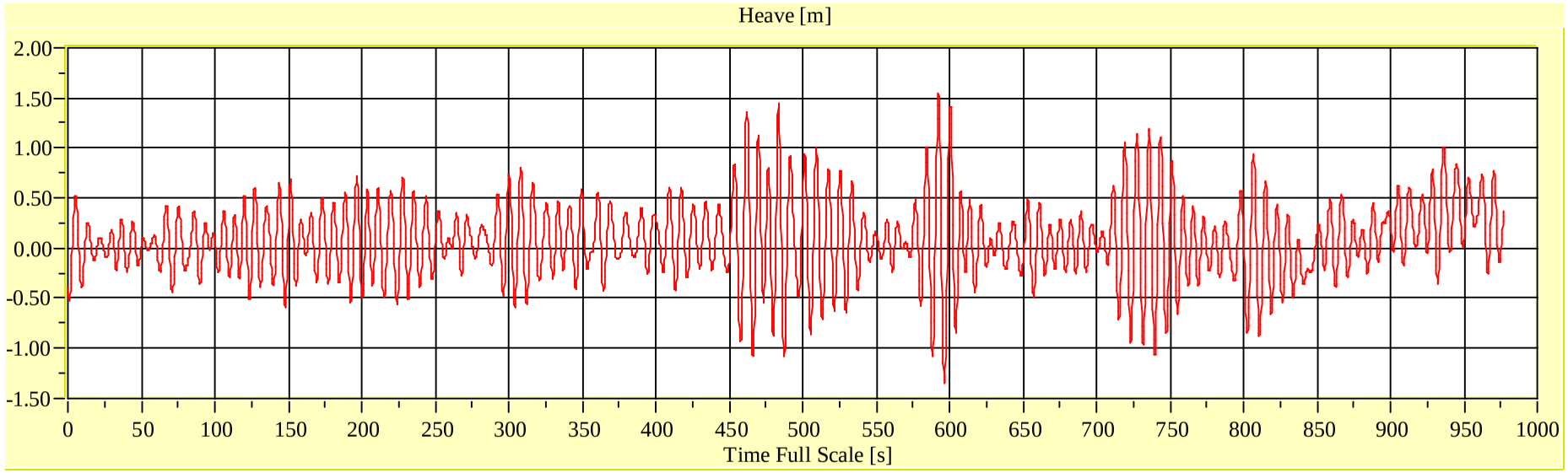


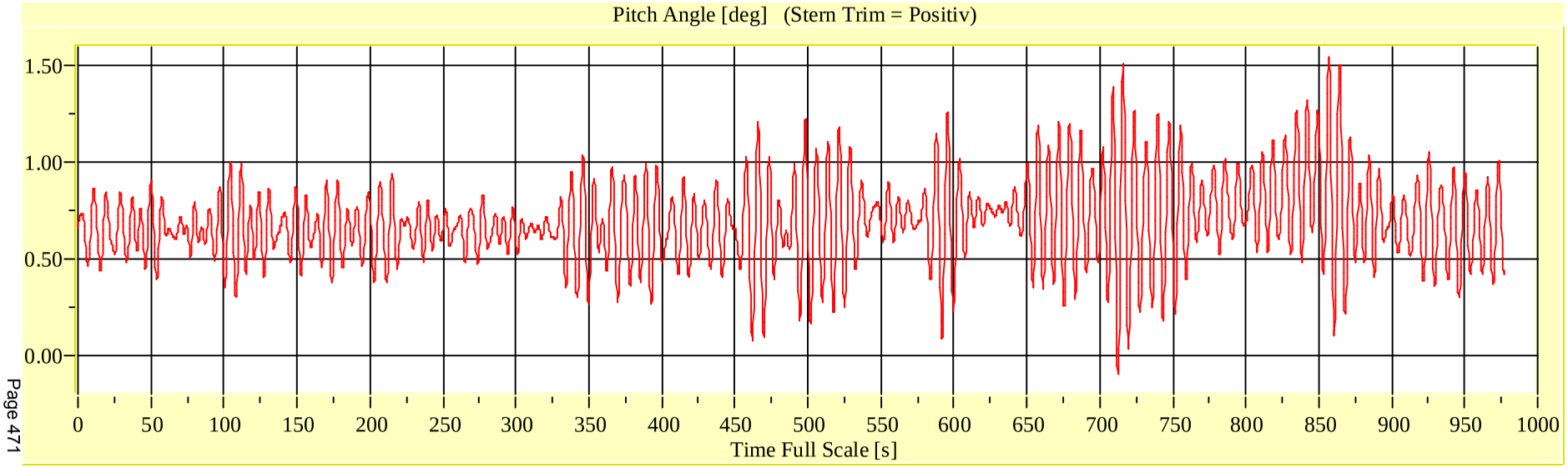


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

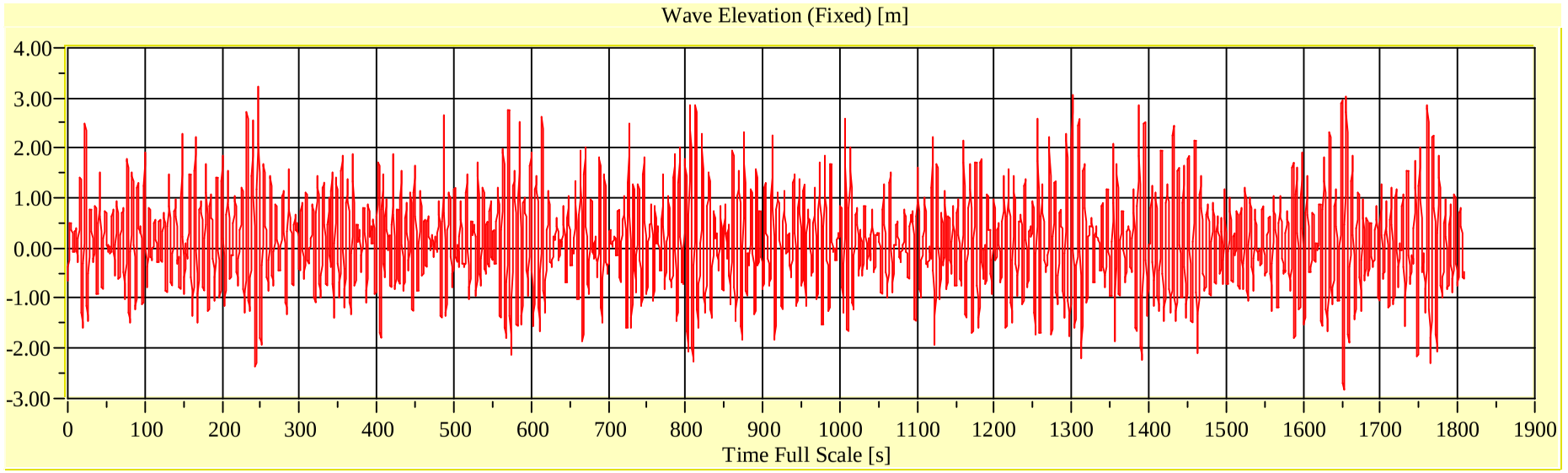


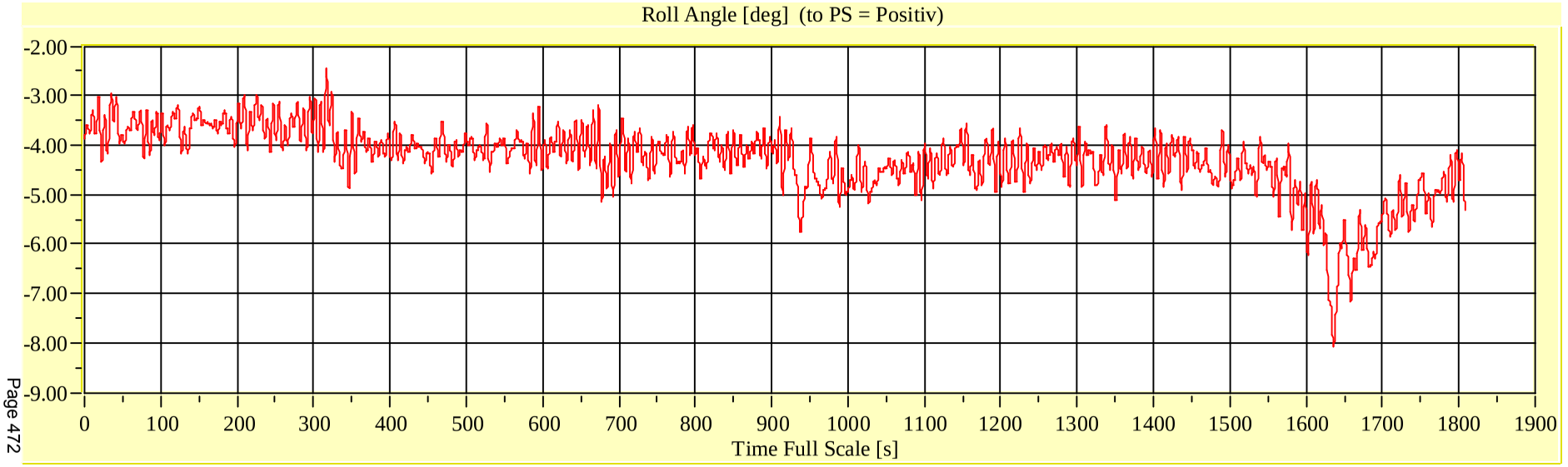


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

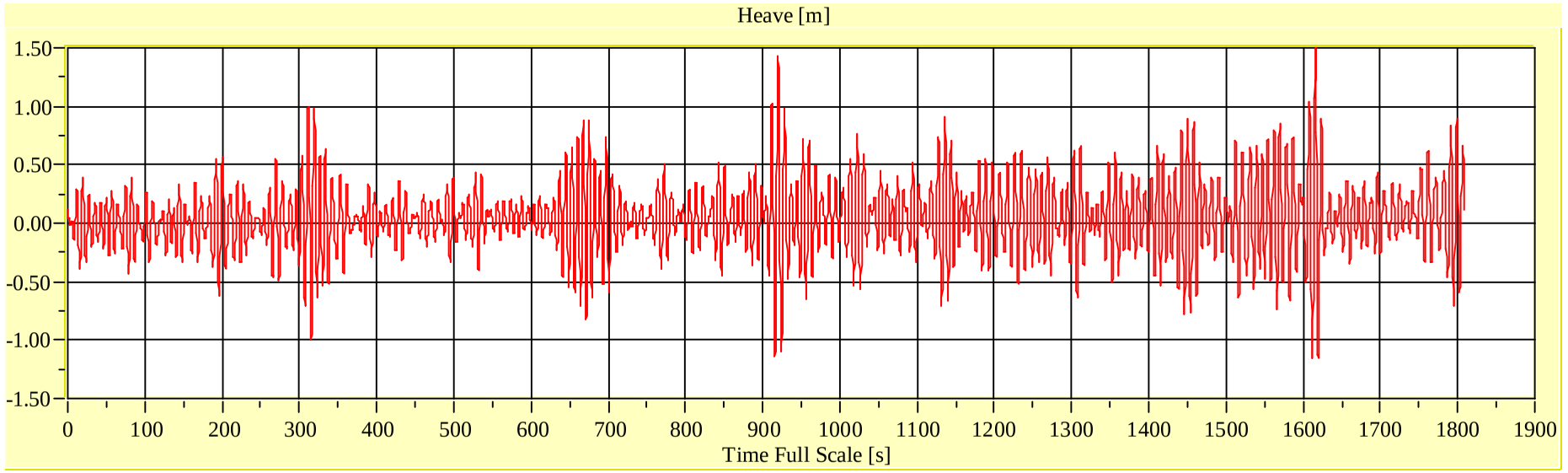


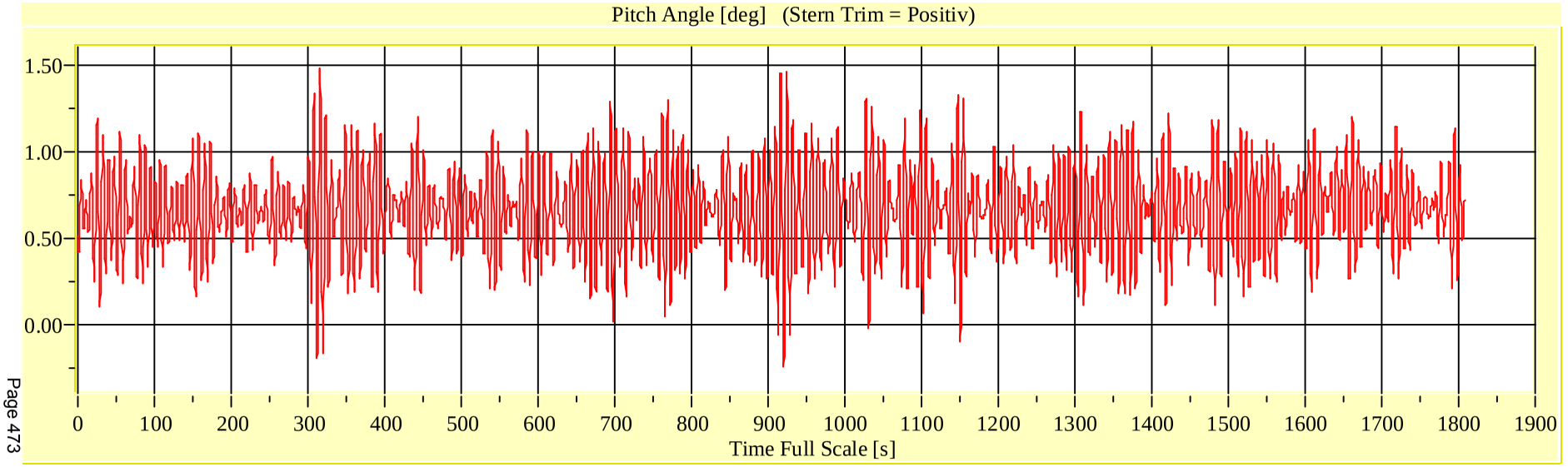


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29719-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

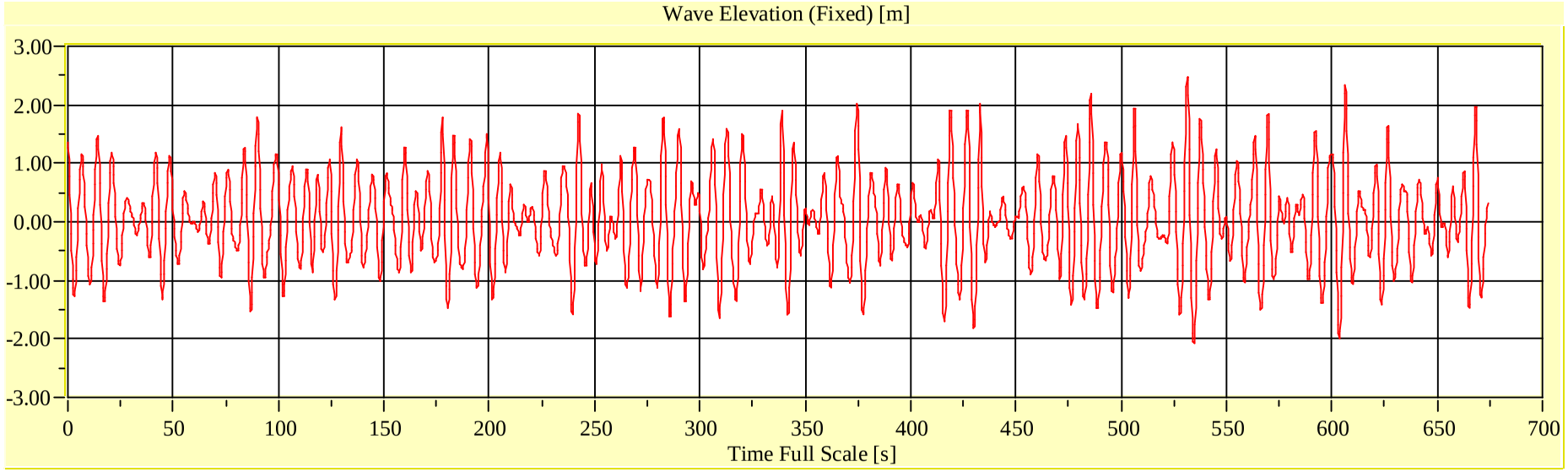


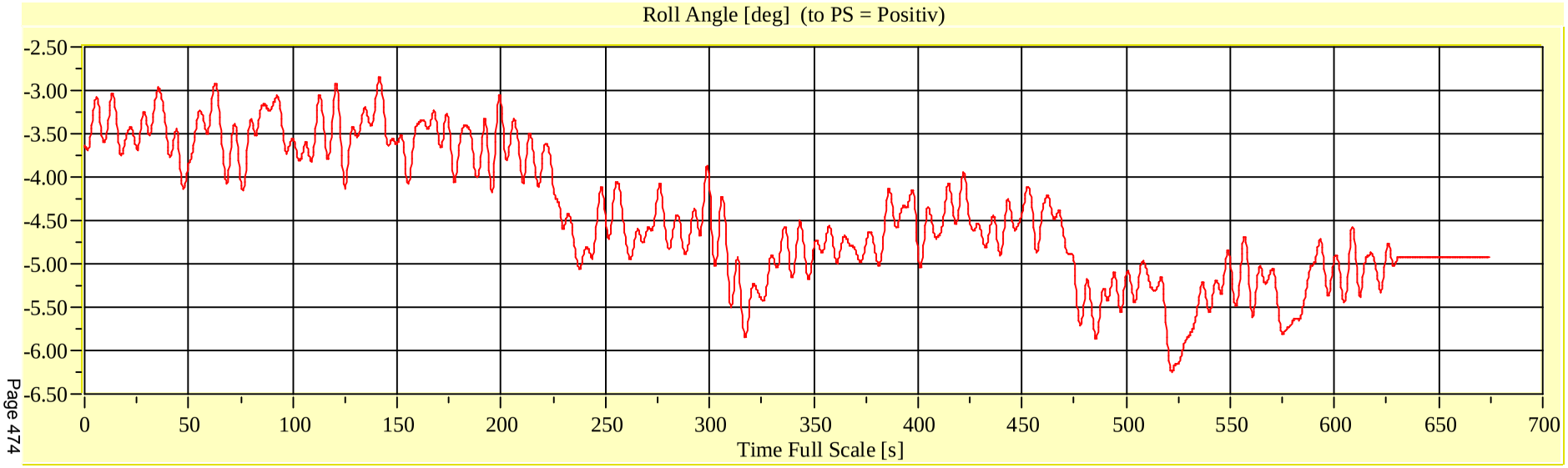


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-01	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3



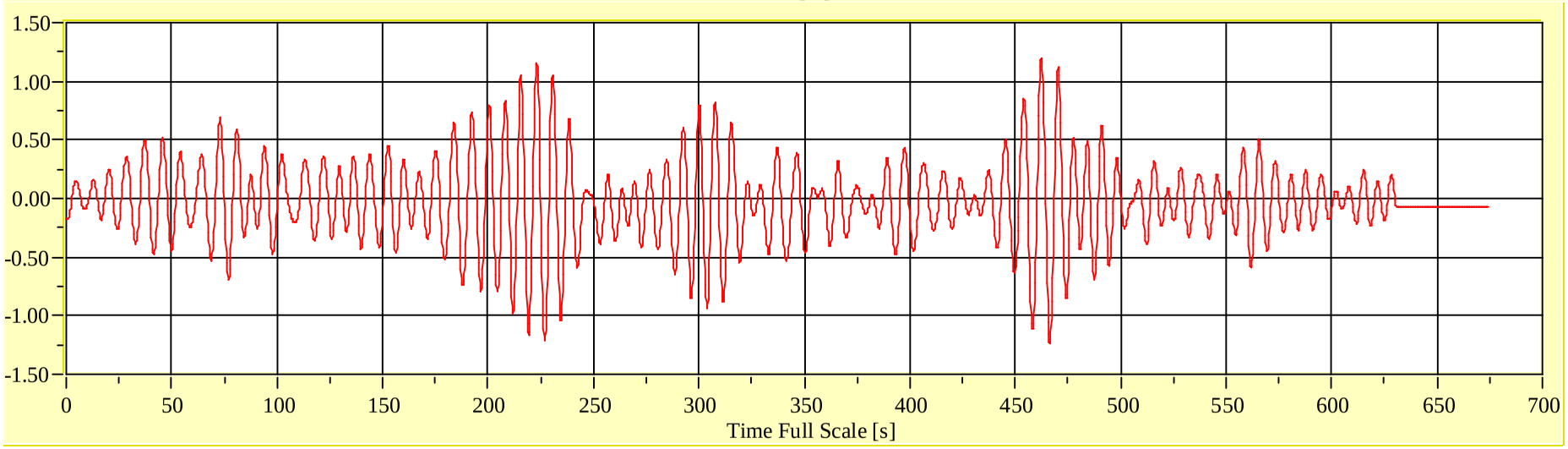


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

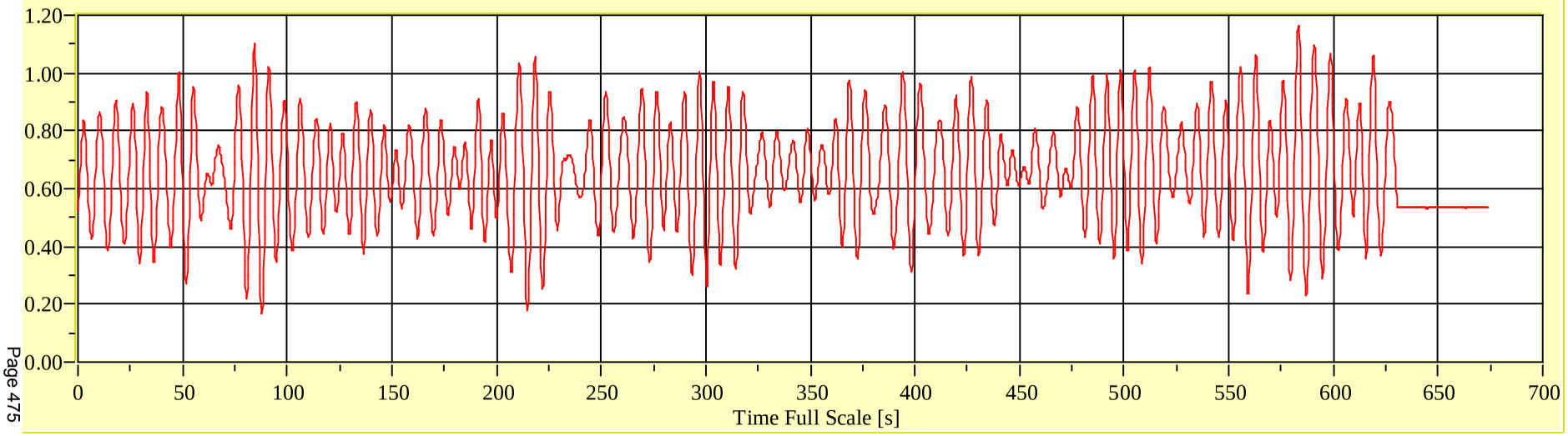
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-01	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

Heave [m]



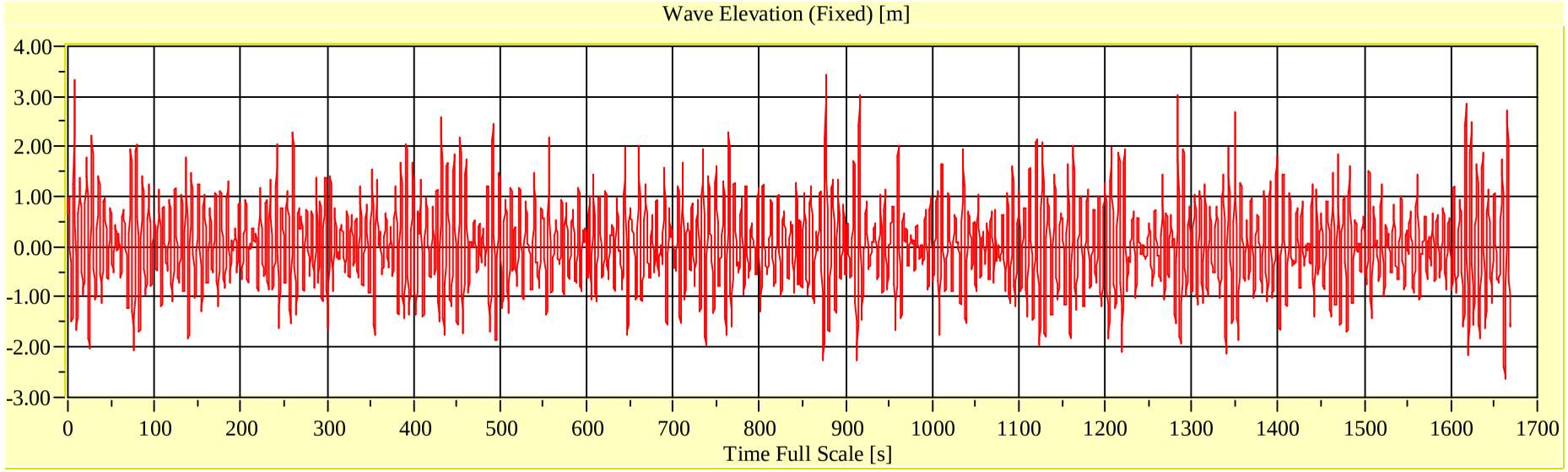
Pitch Angle [deg] (Stern Trim = Positiv)

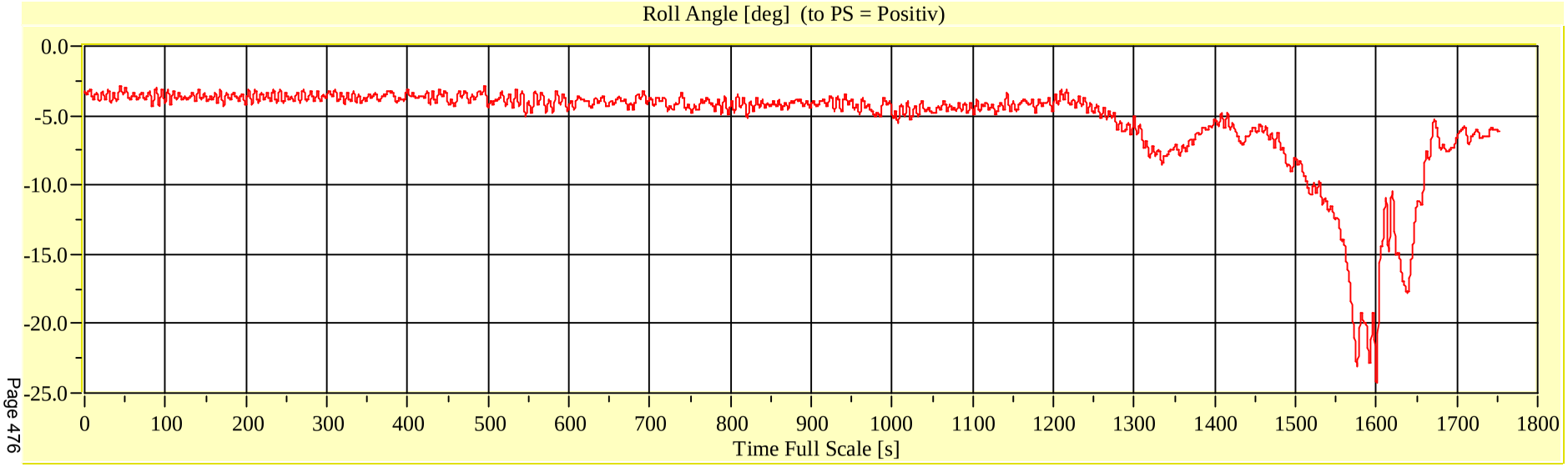


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-02	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

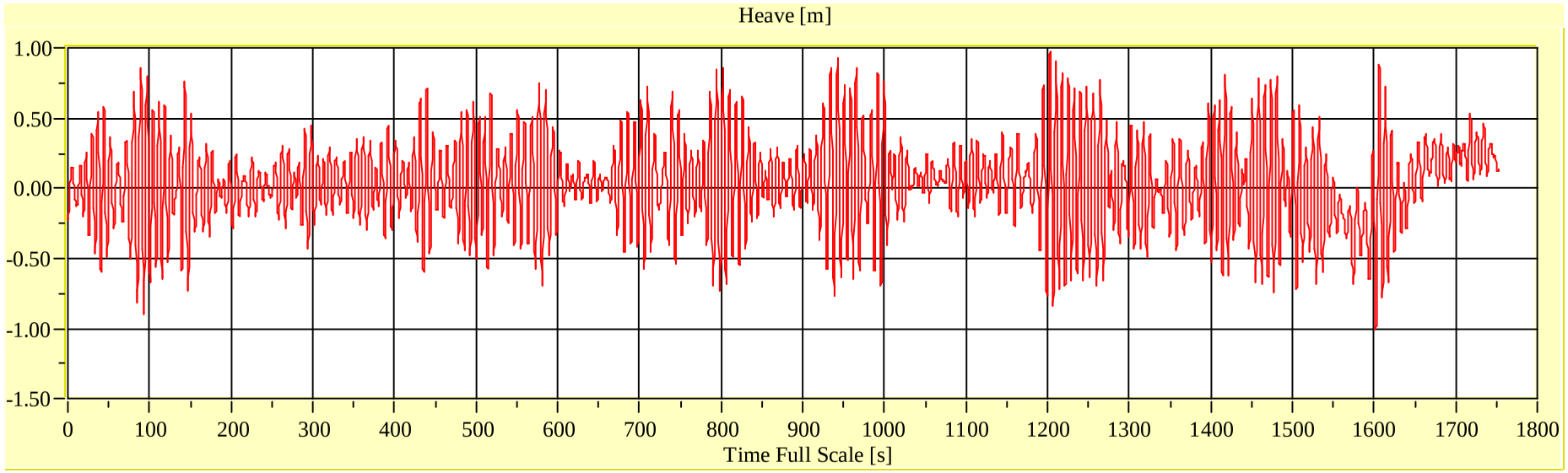


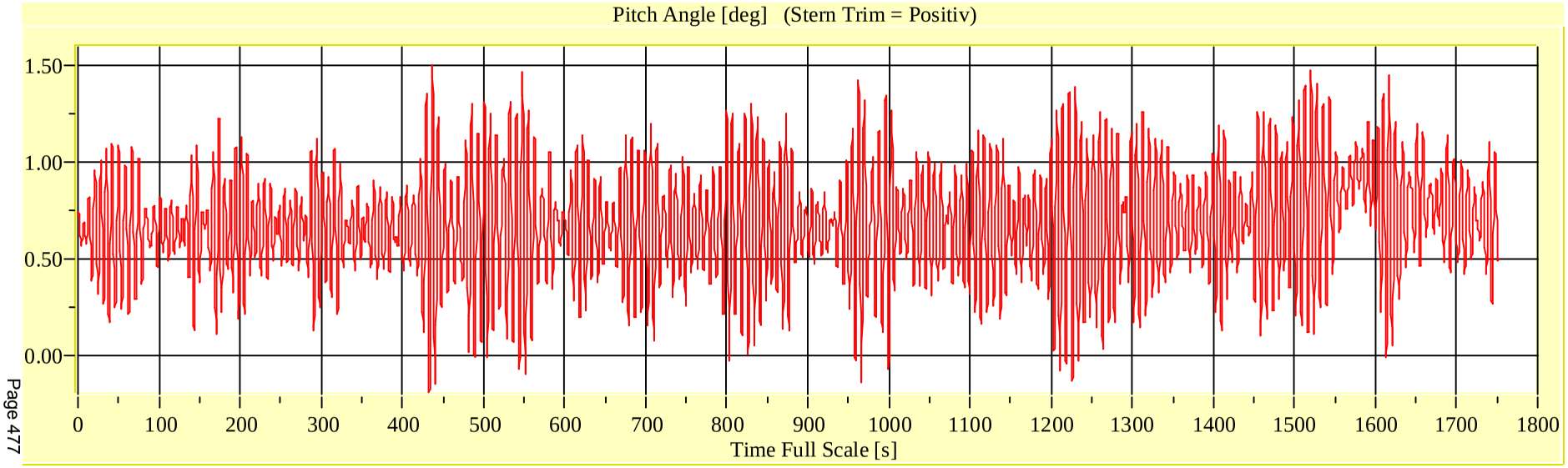


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-02	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

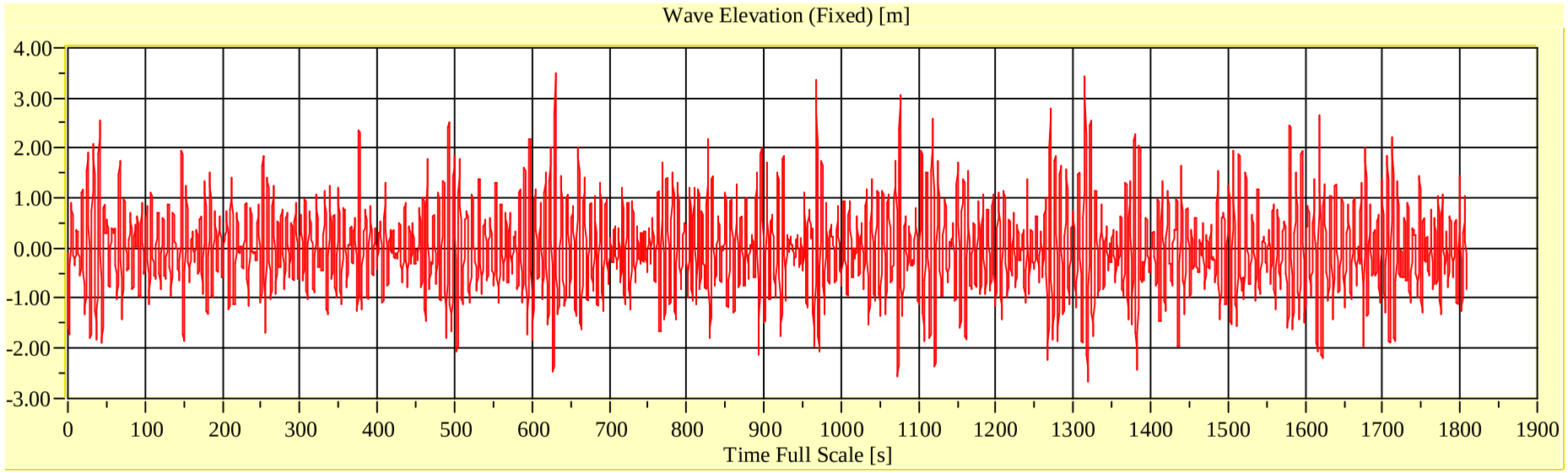


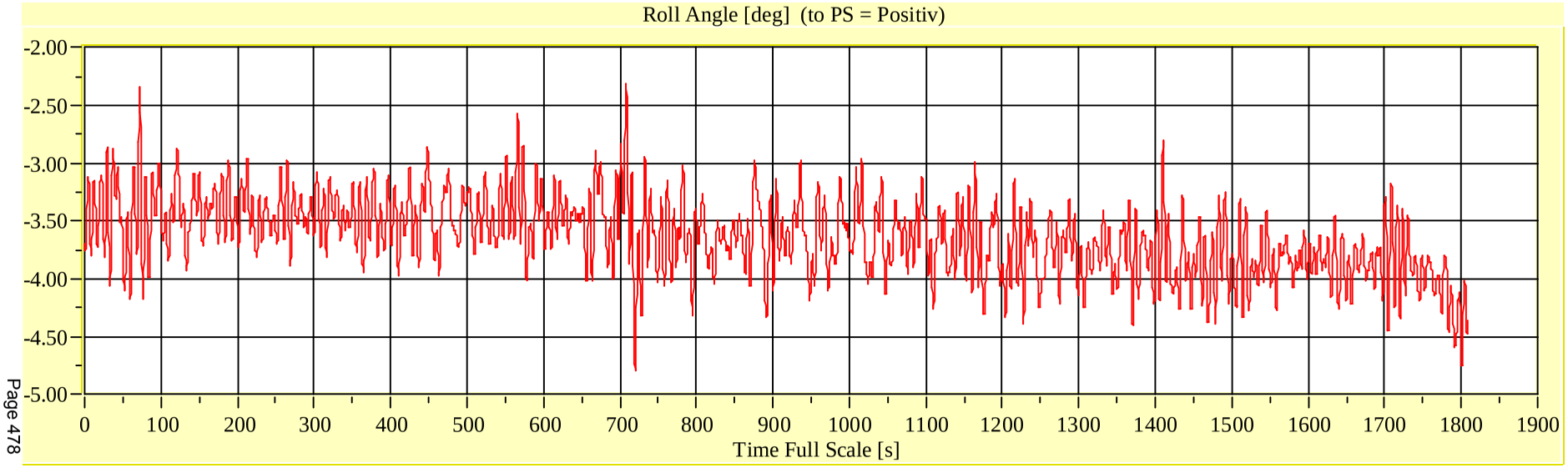


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-03	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3



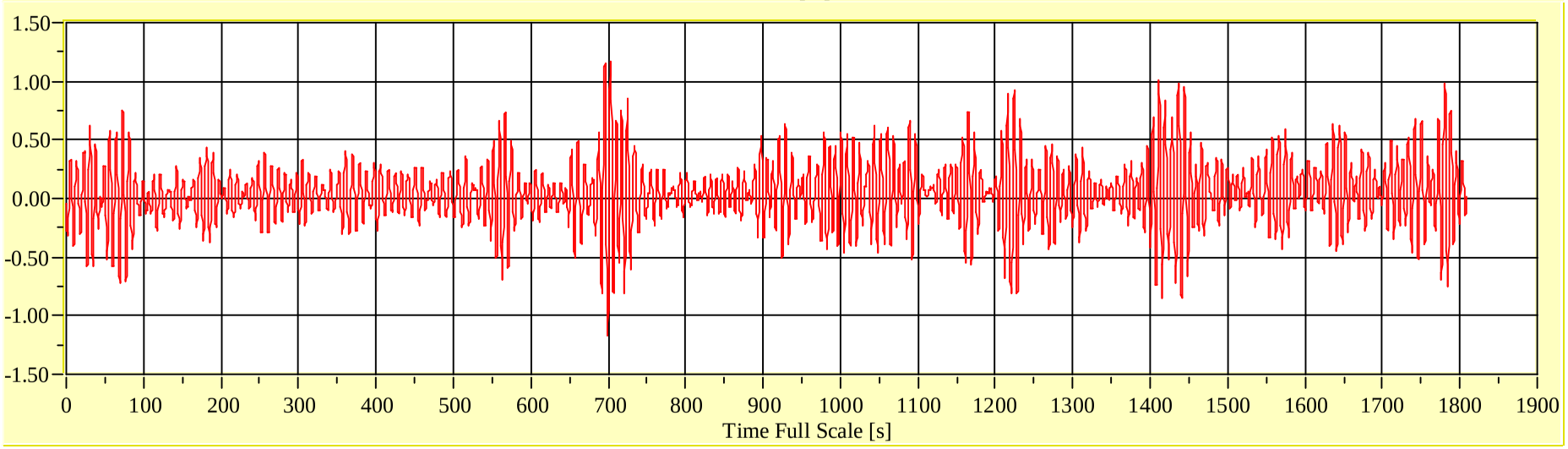


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

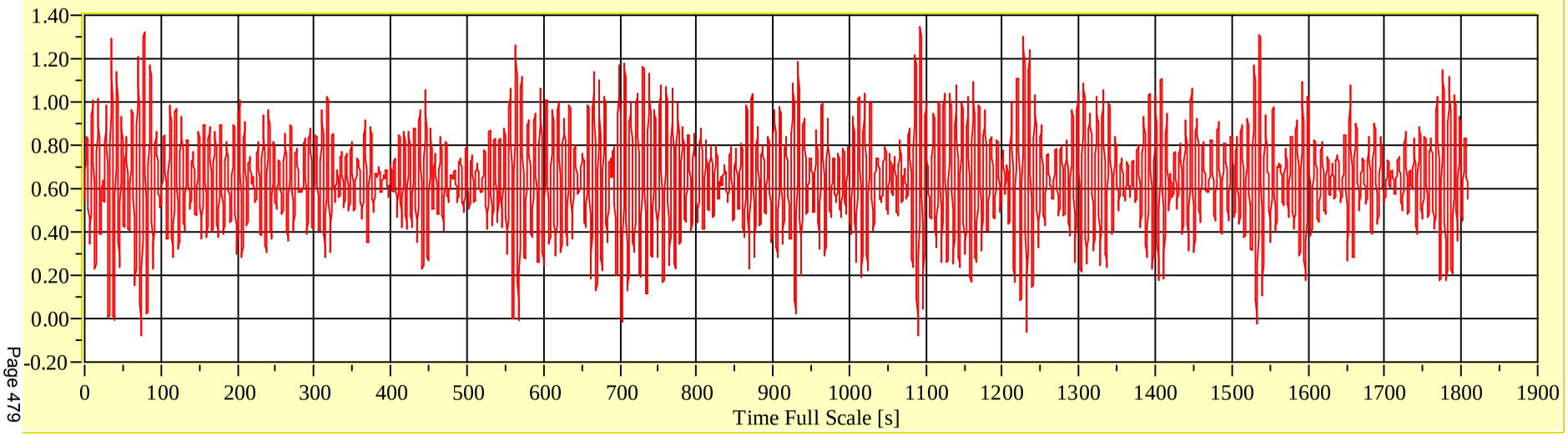
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-03	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

Heave [m]



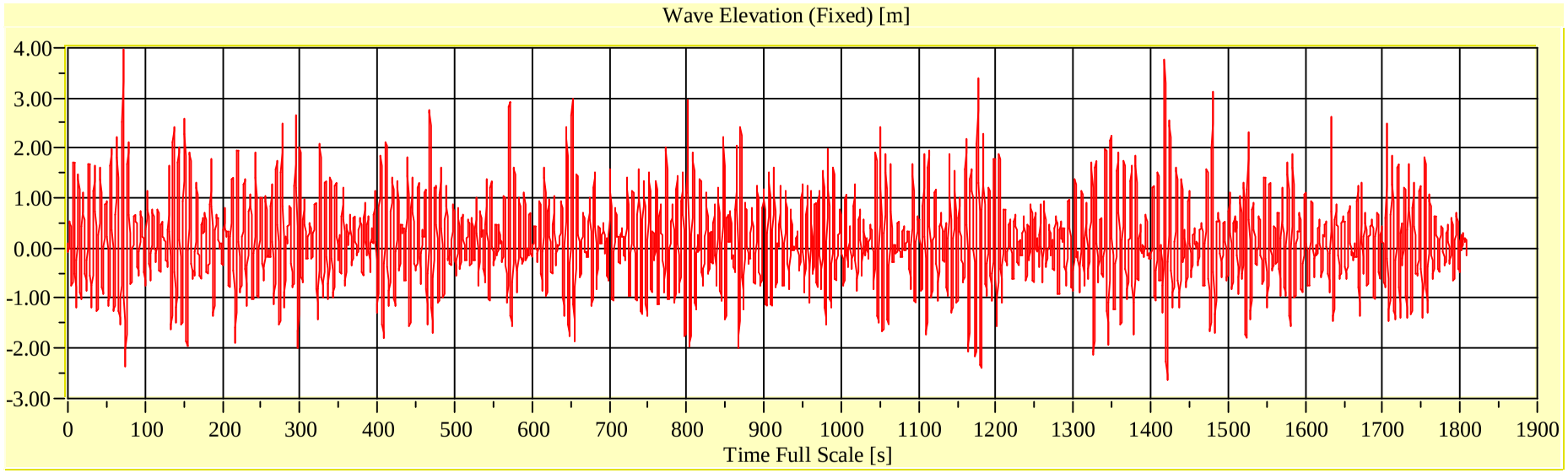
Pitch Angle [deg] (Stern Trim = Positiv)

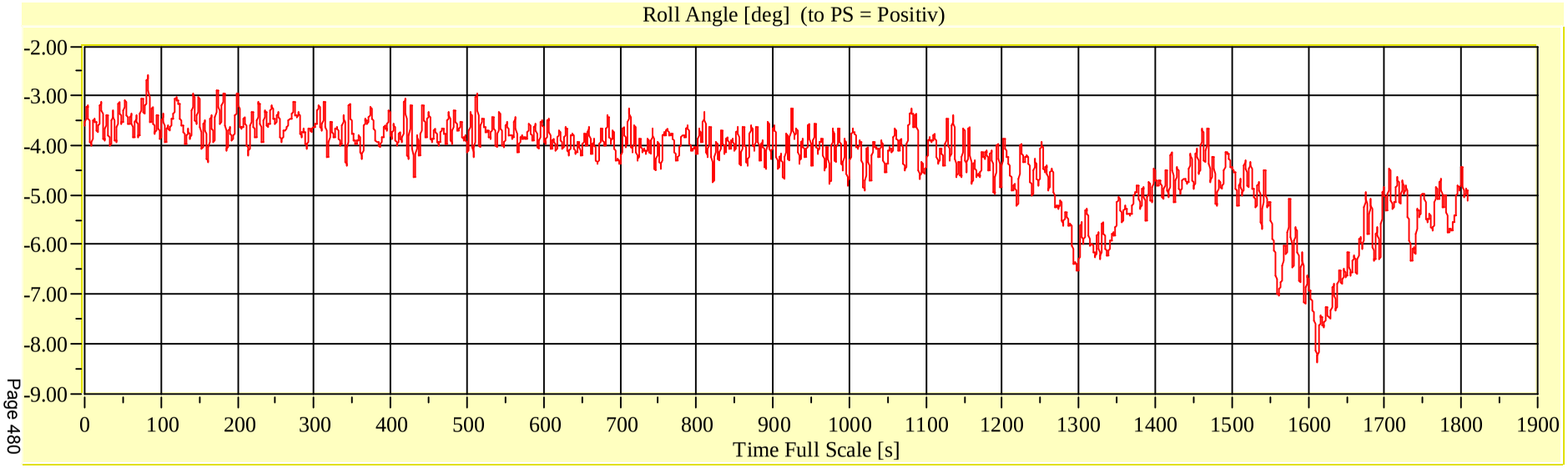


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-04	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

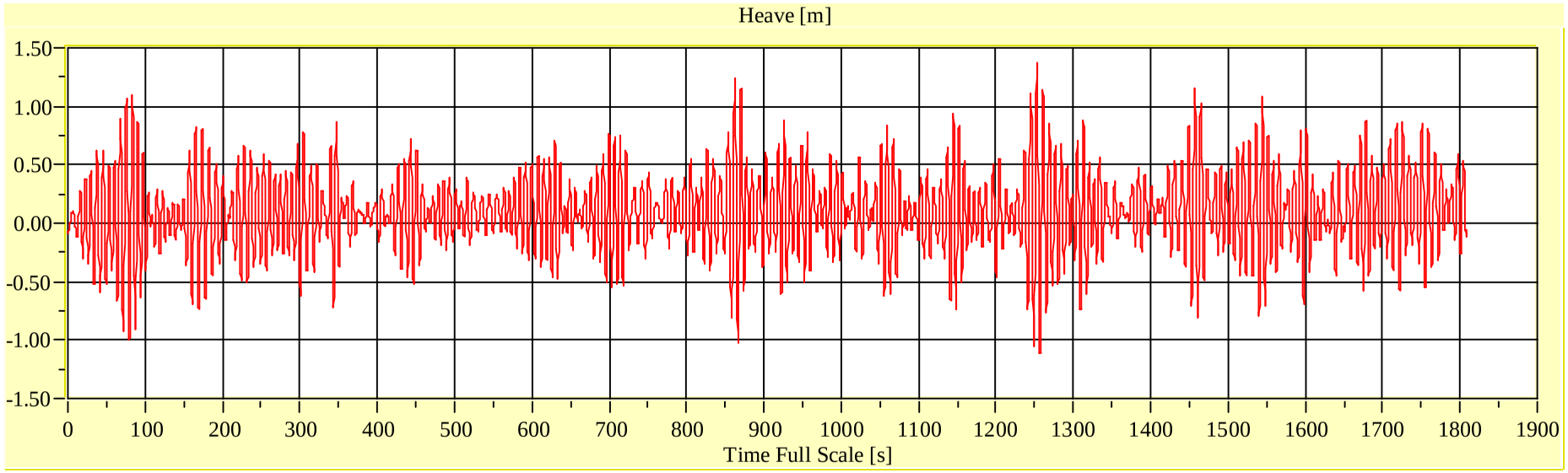


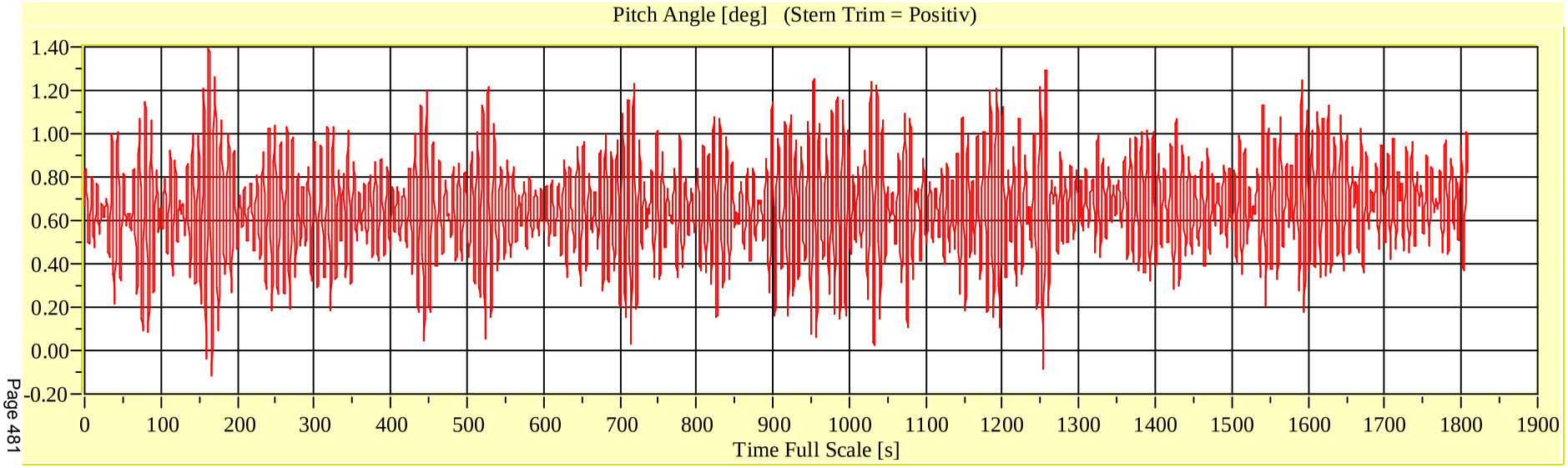


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-04	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

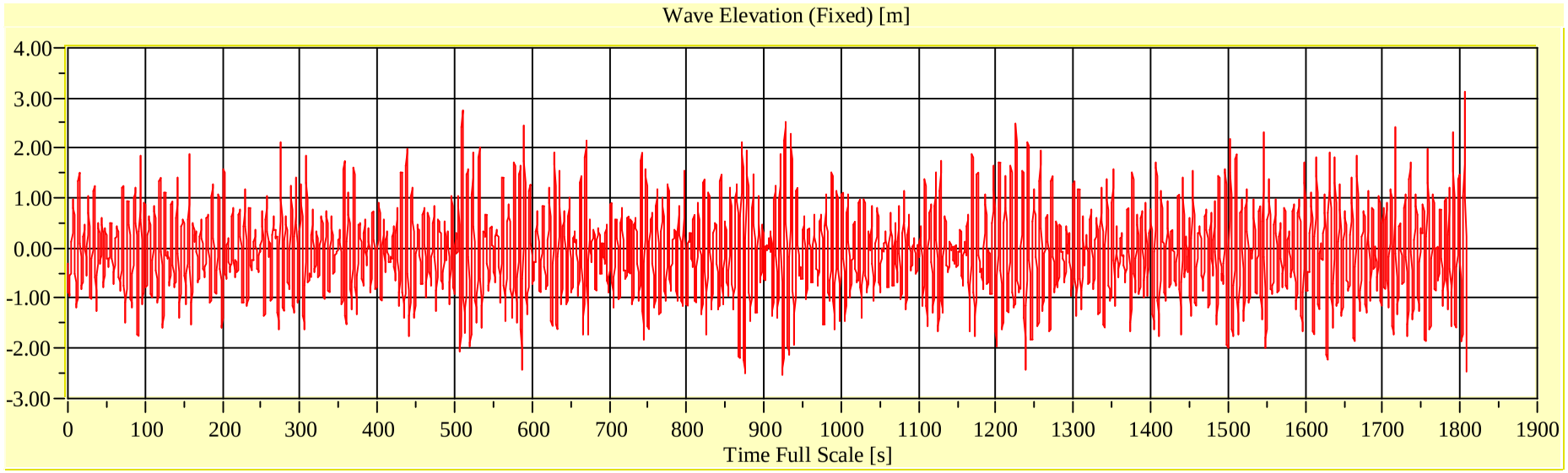


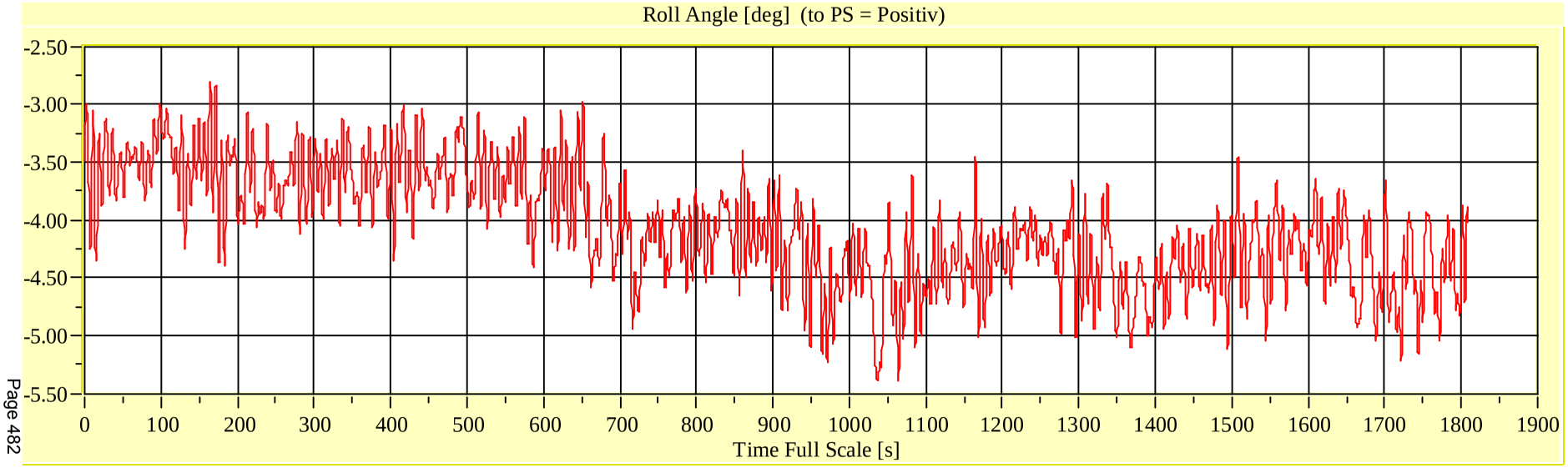


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-05	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

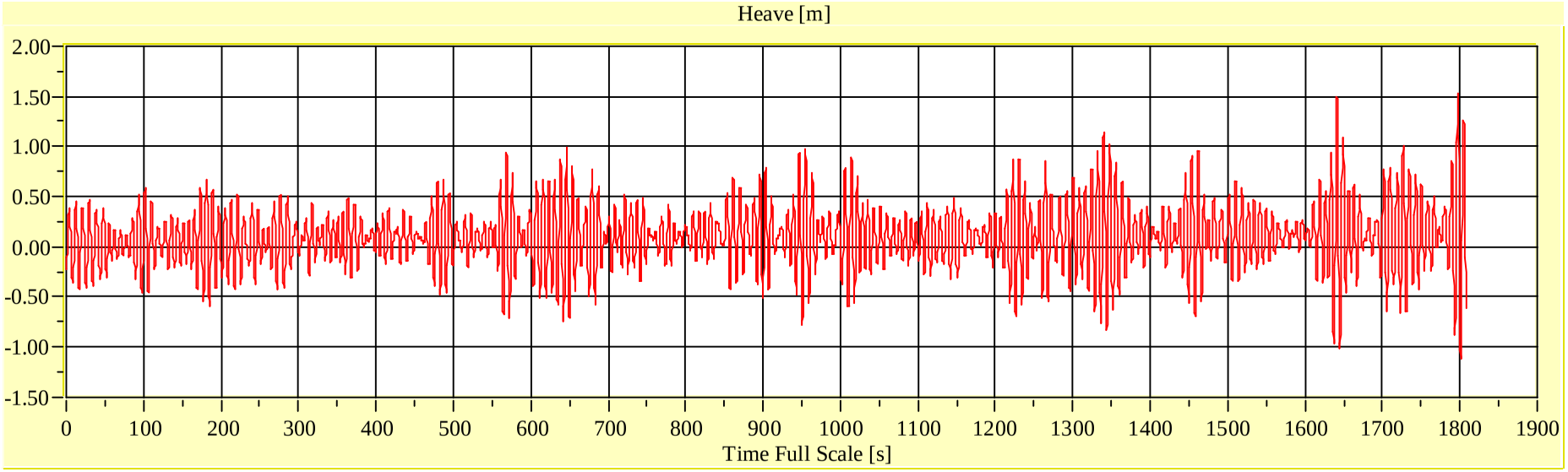


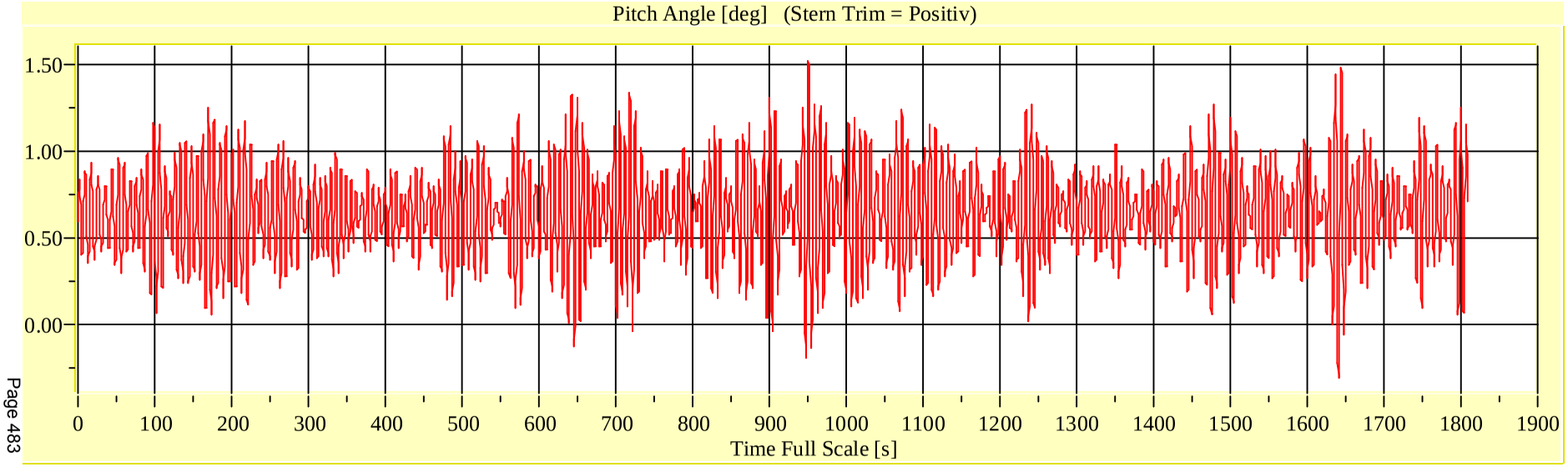


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-05	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

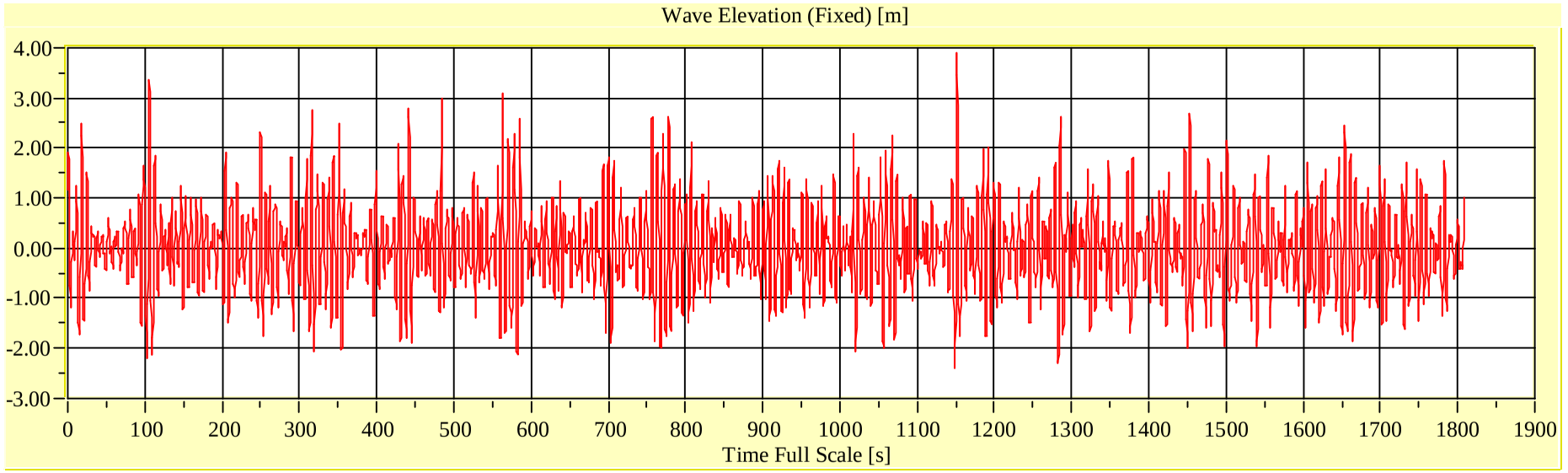


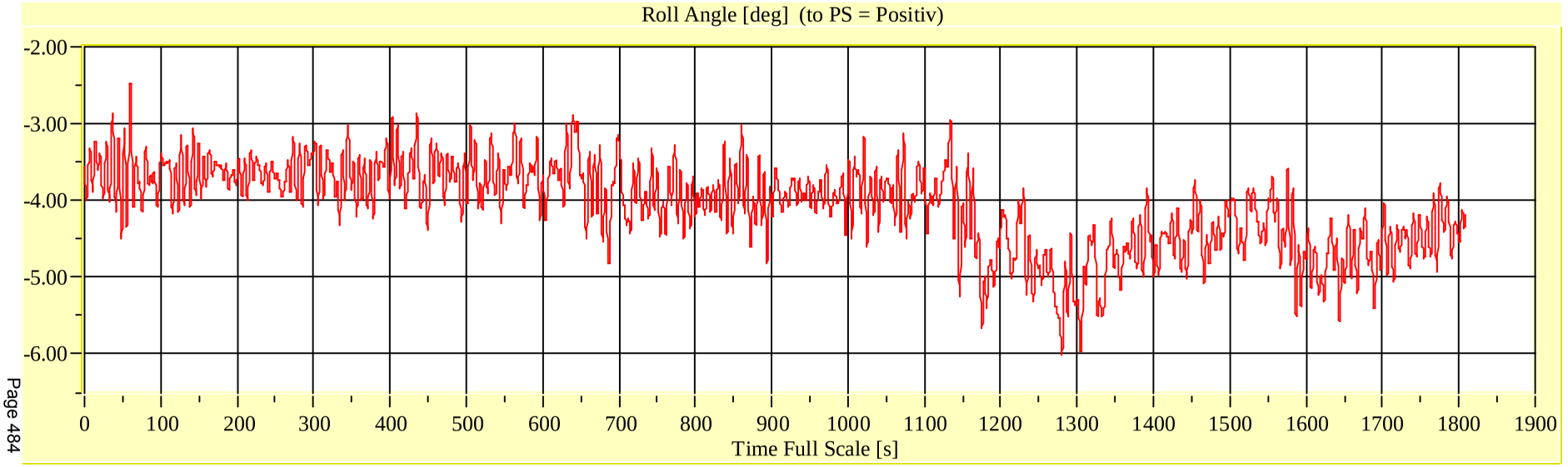


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-06	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3



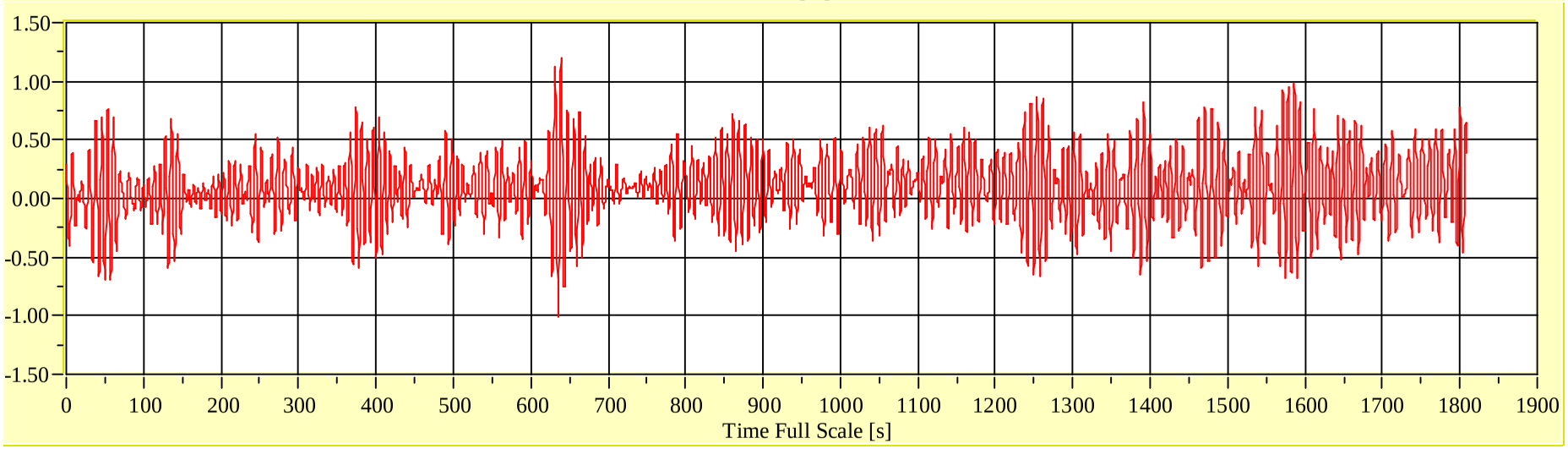


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

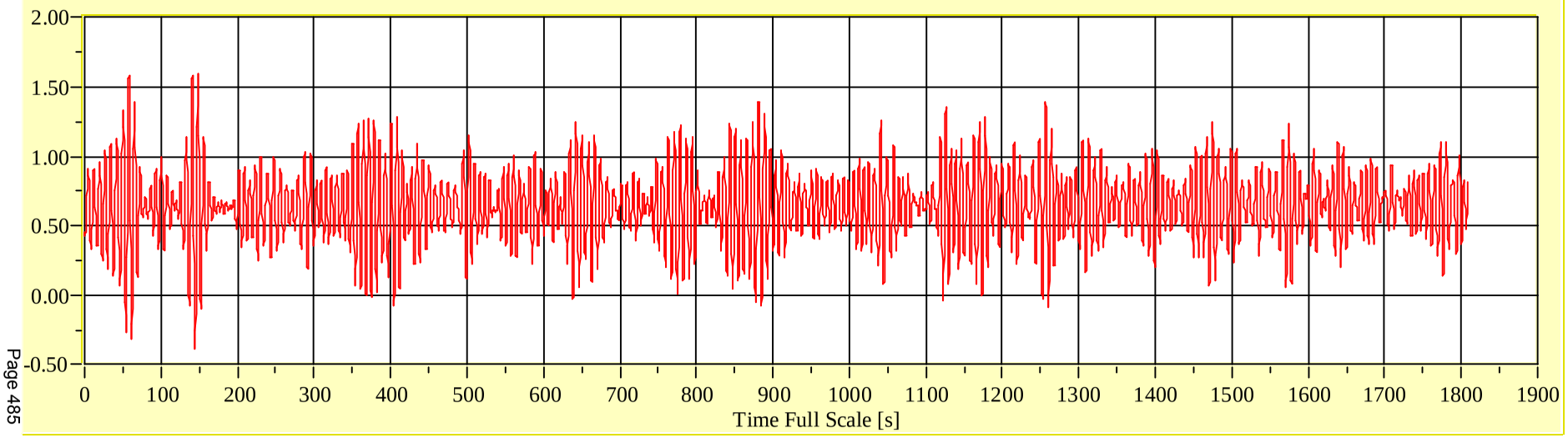
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-06	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

Heave [m]



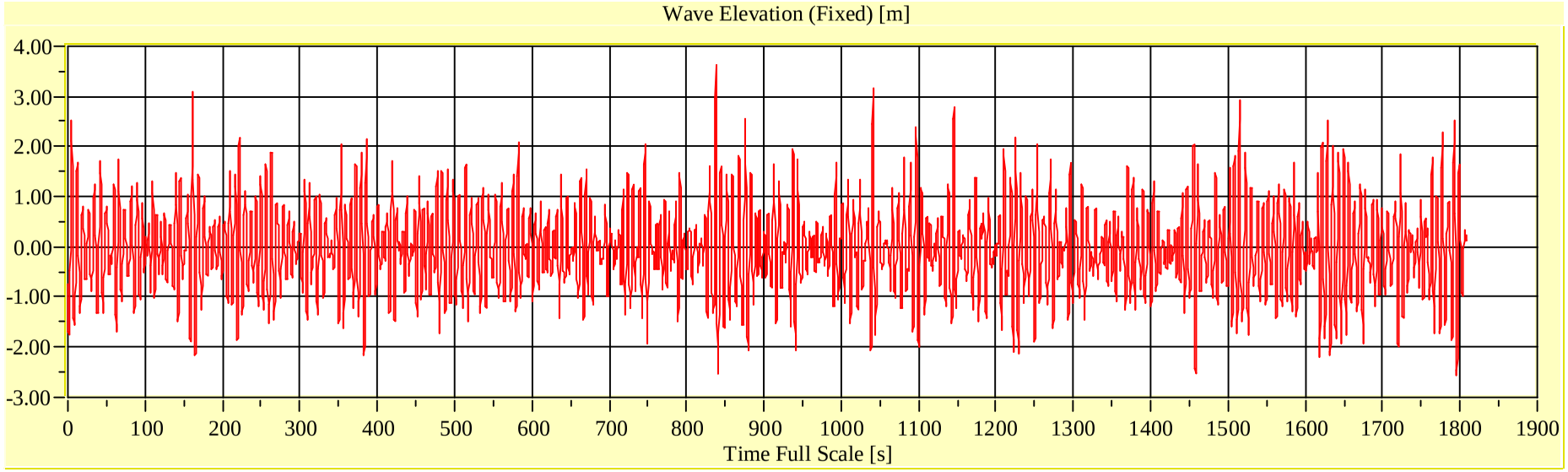
Pitch Angle [deg] (Stern Trim = Positiv)

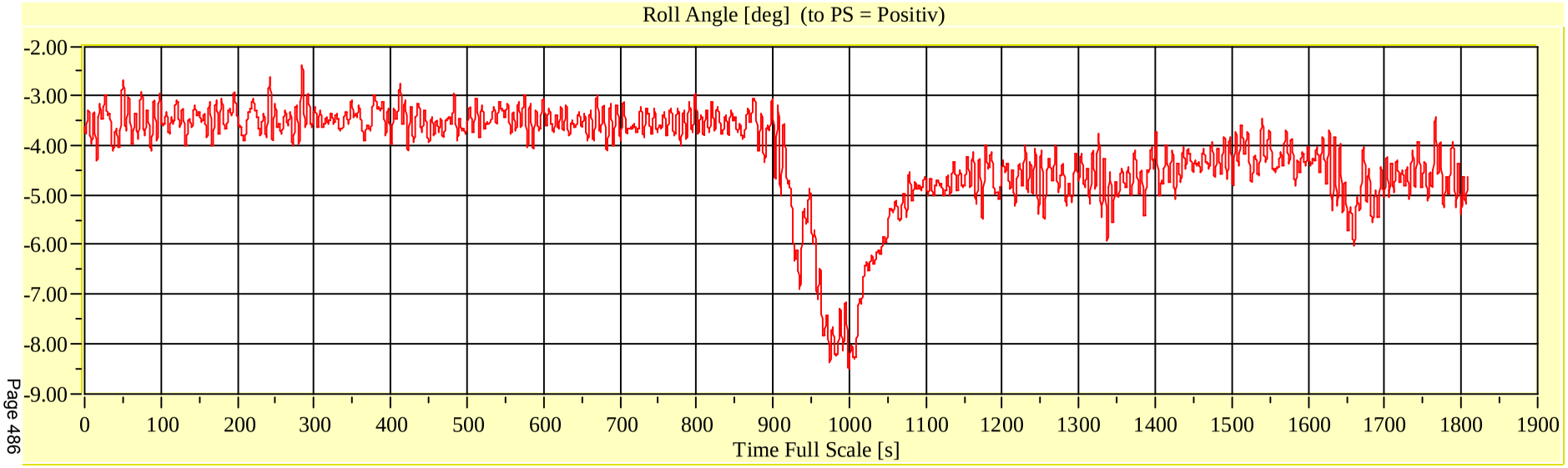


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-07	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

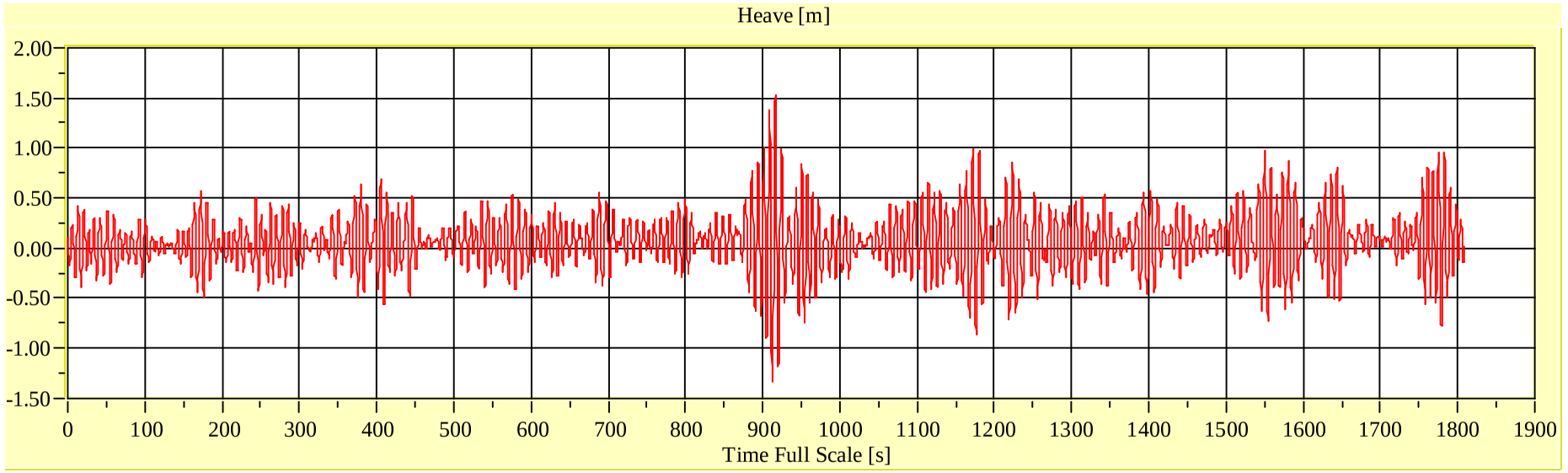


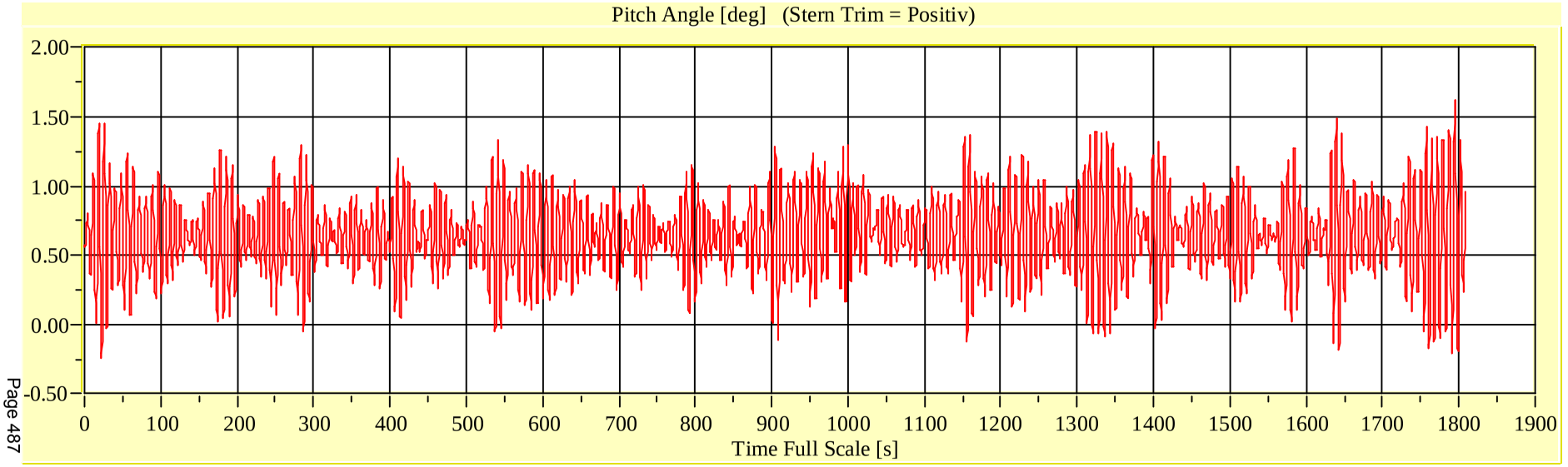


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-07	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

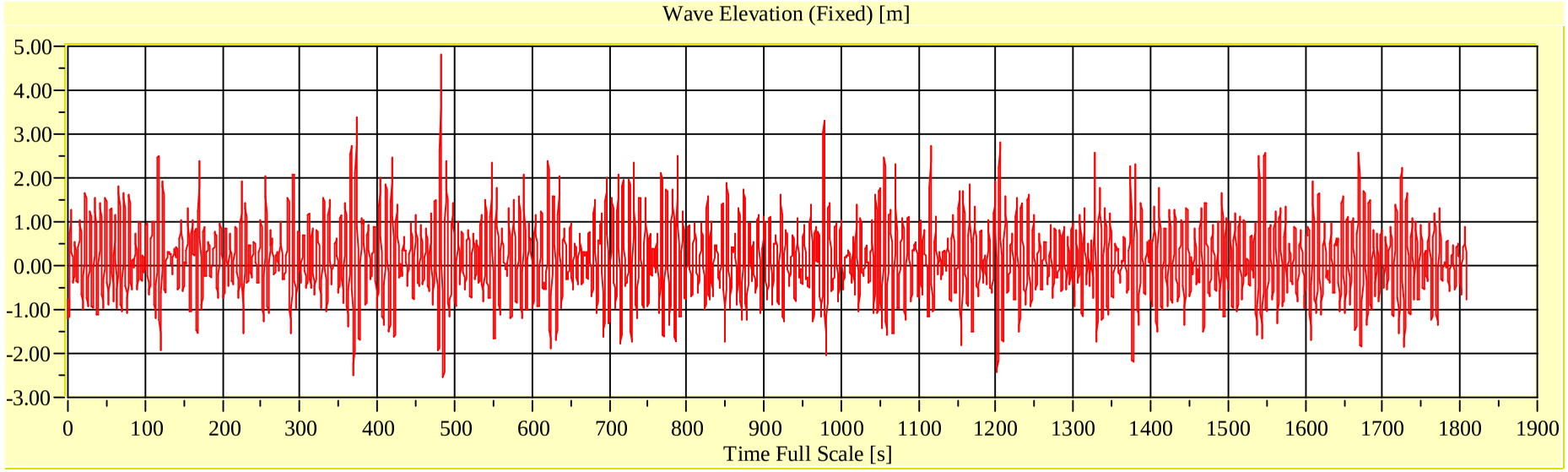


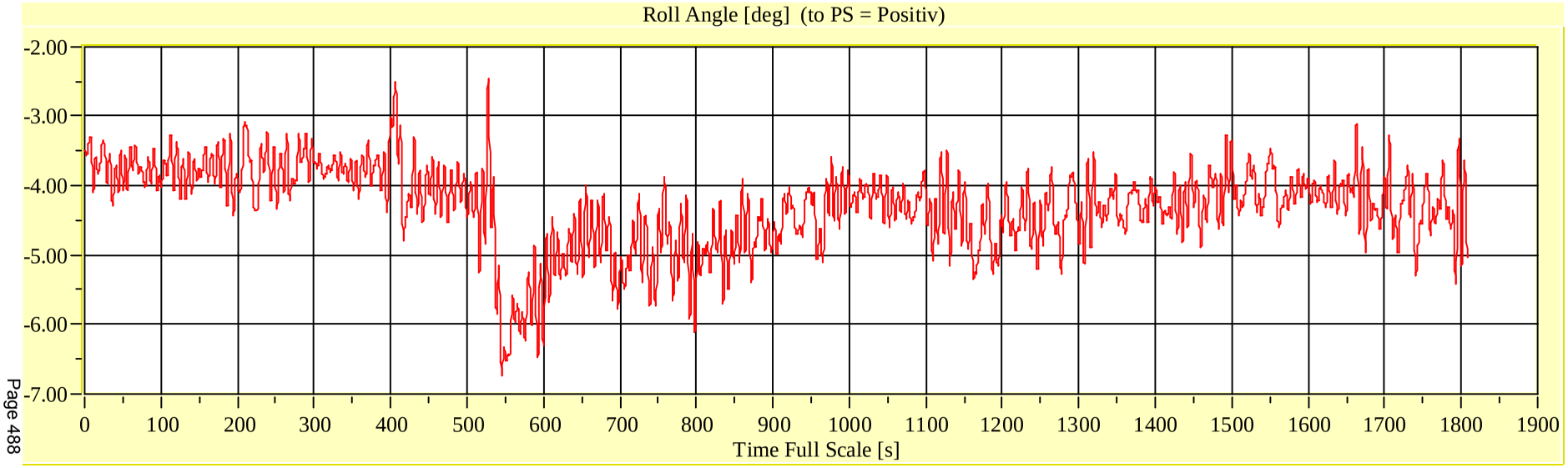


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-08	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

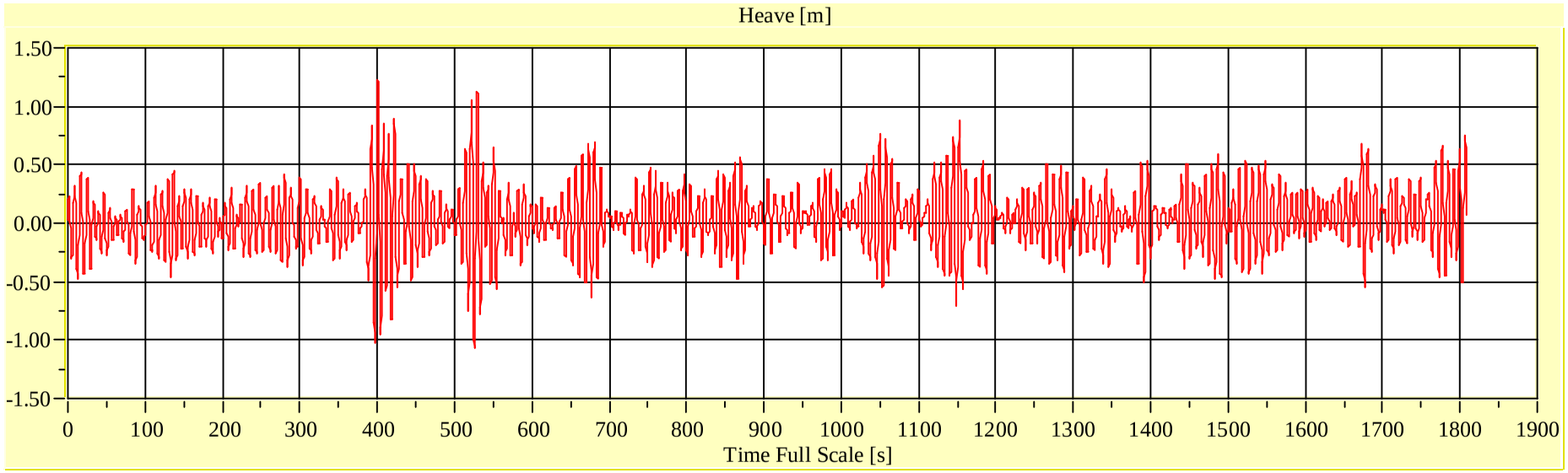


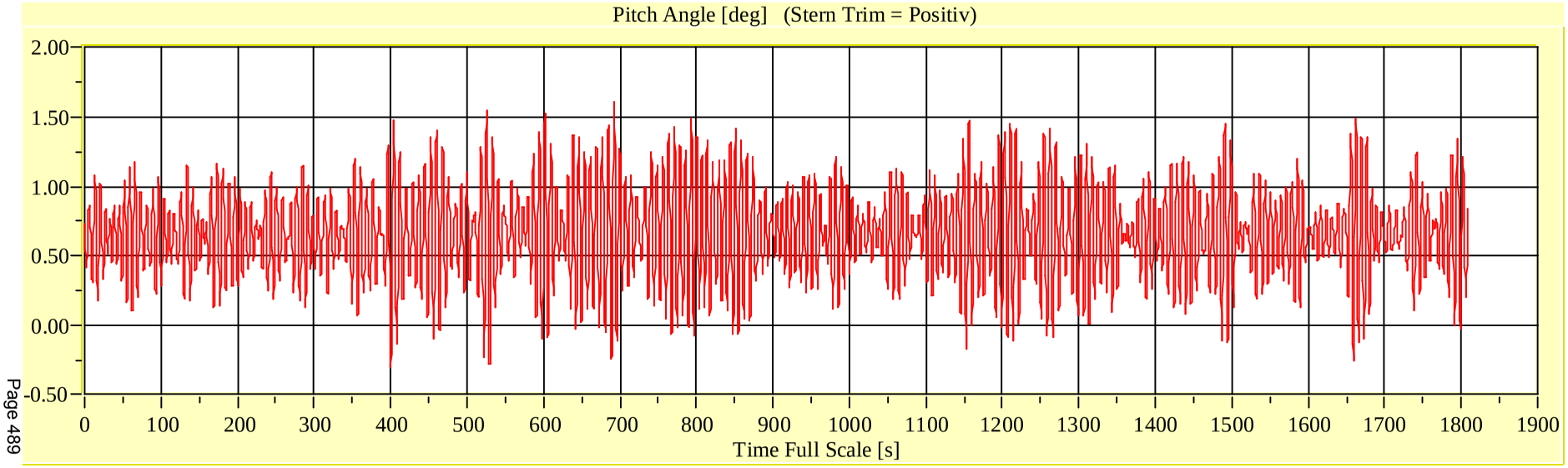


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-08	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

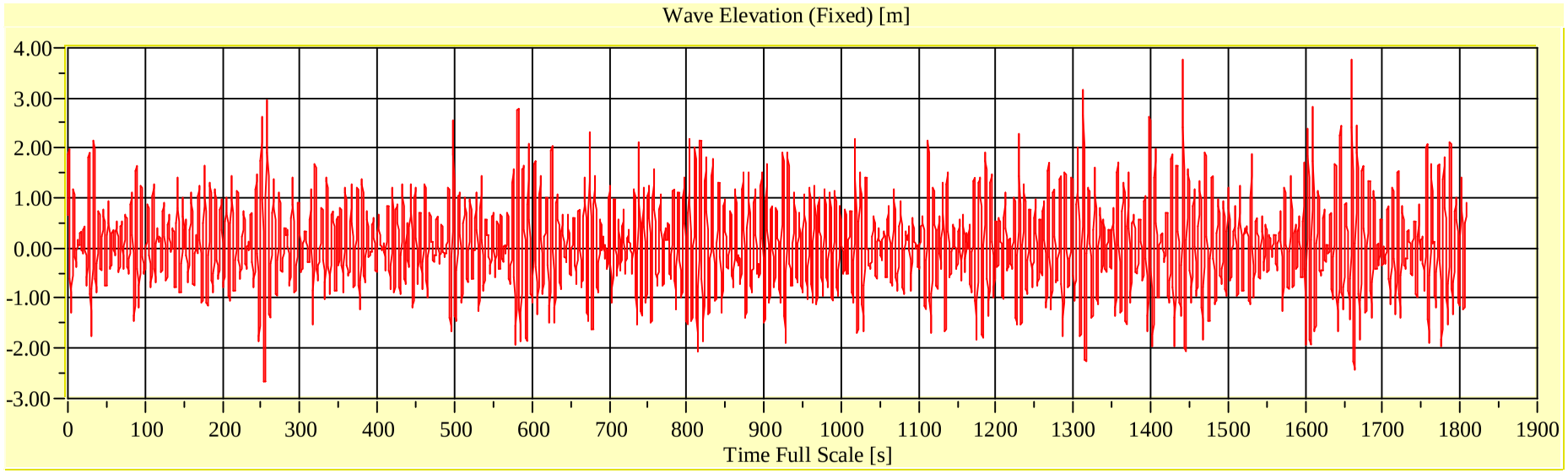


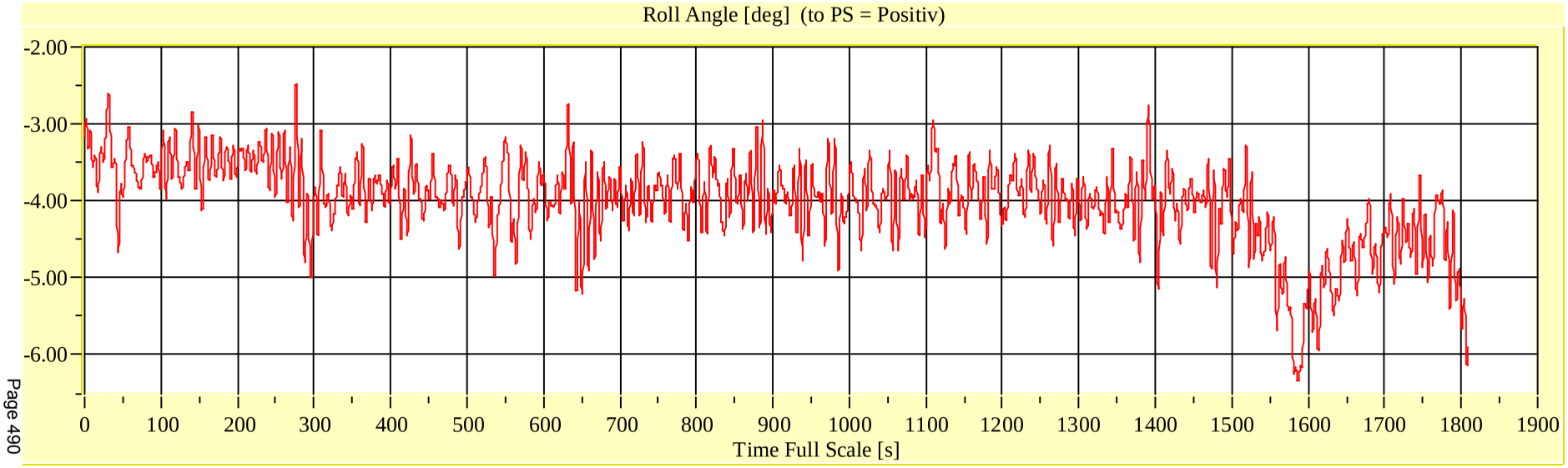


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-09	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

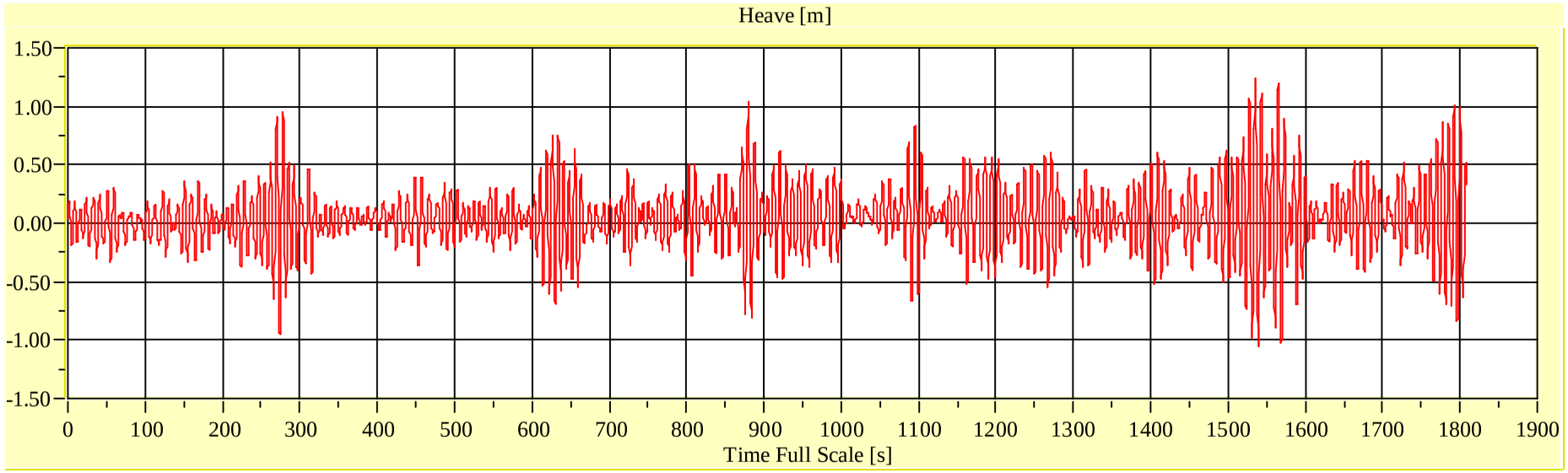


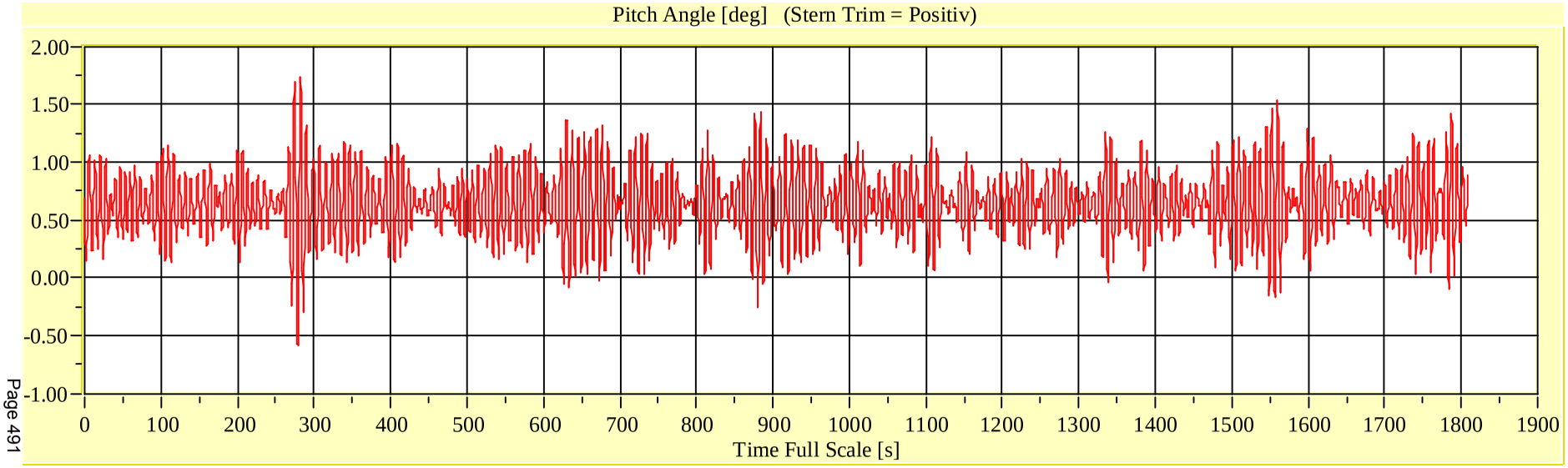


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-09	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

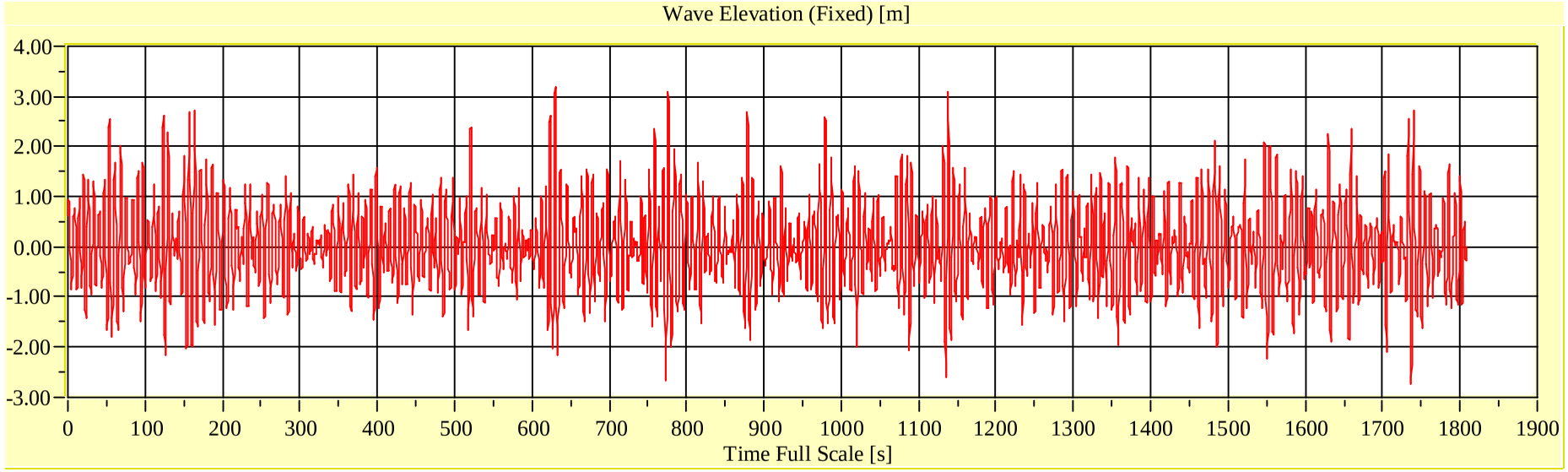


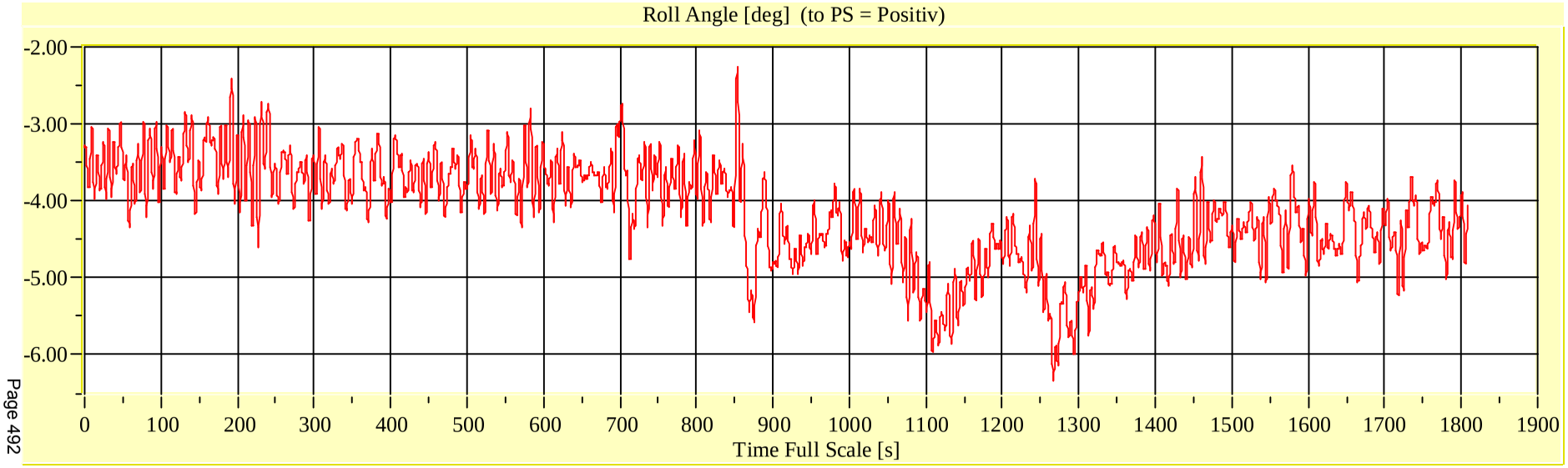


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-10	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

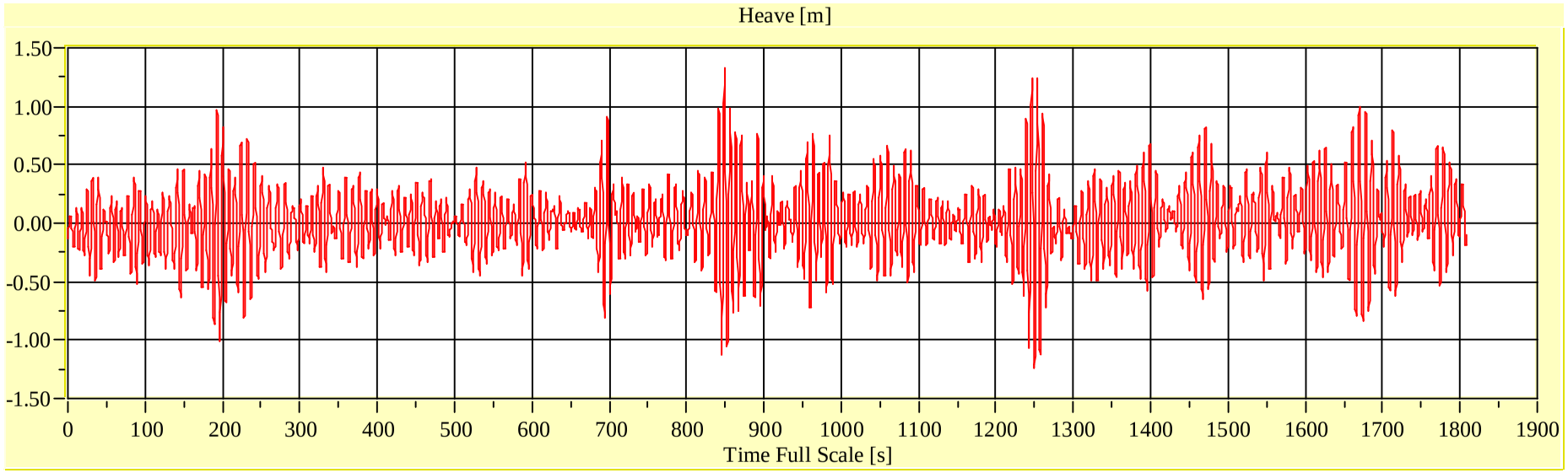


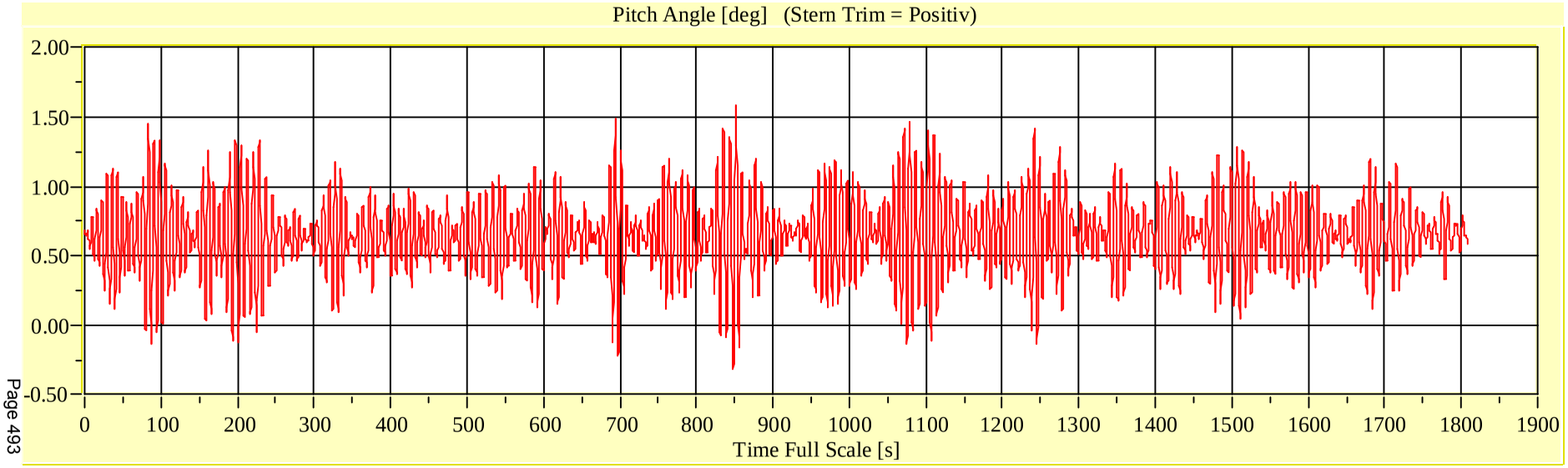


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29720-10	Target Waves: Hs = 3,25 m Tp = 7,211 s	gamma = 3,3

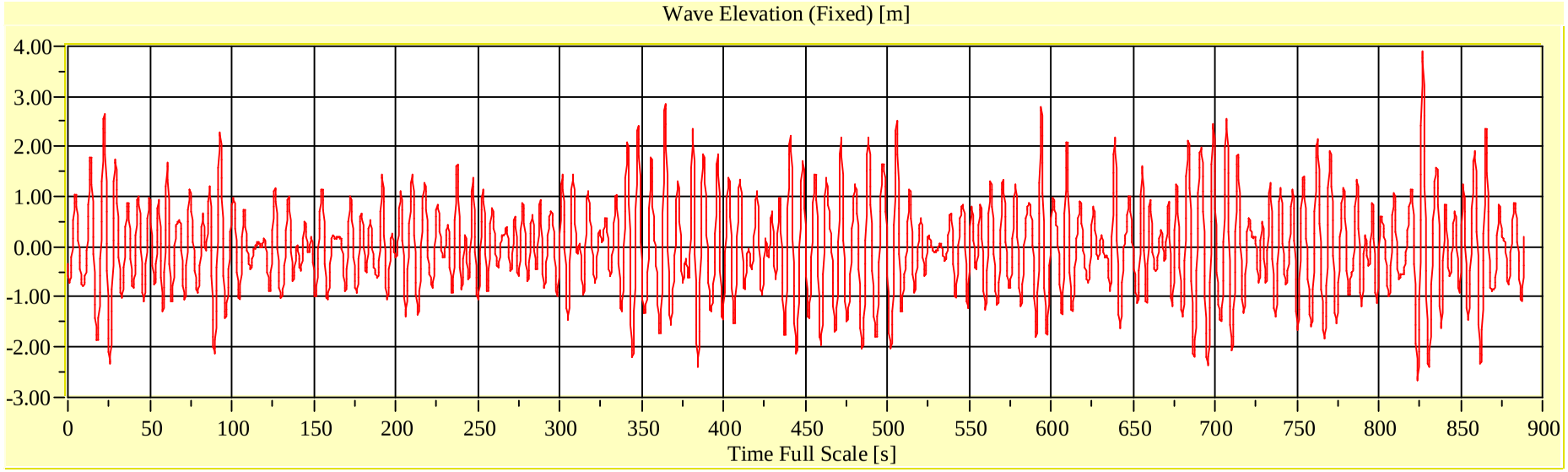


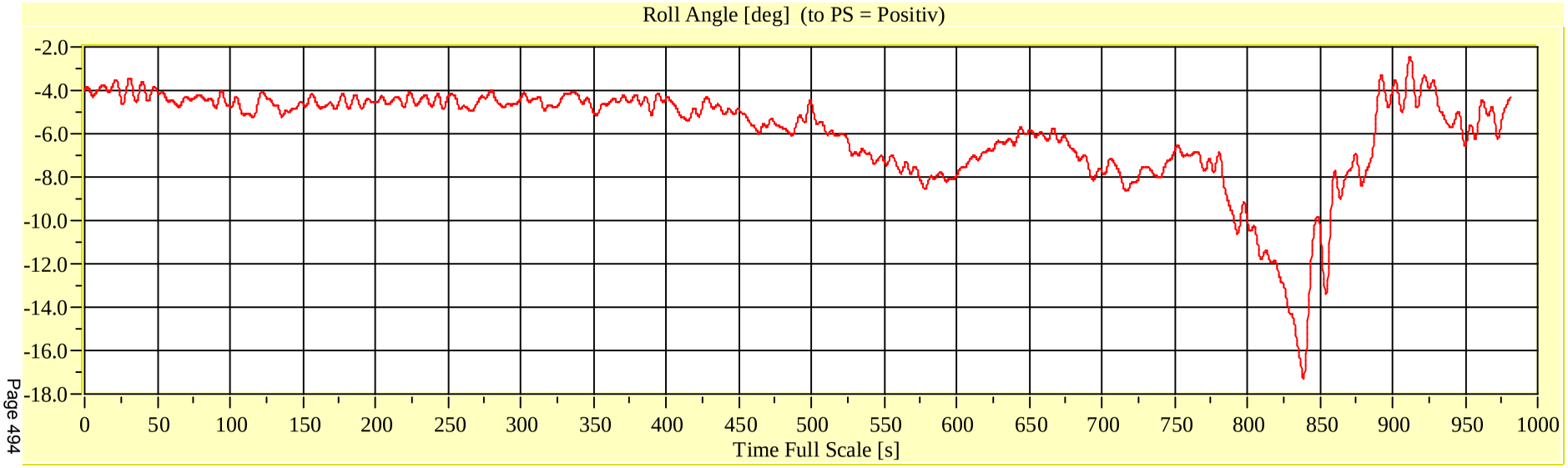


Date: 17.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-01	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



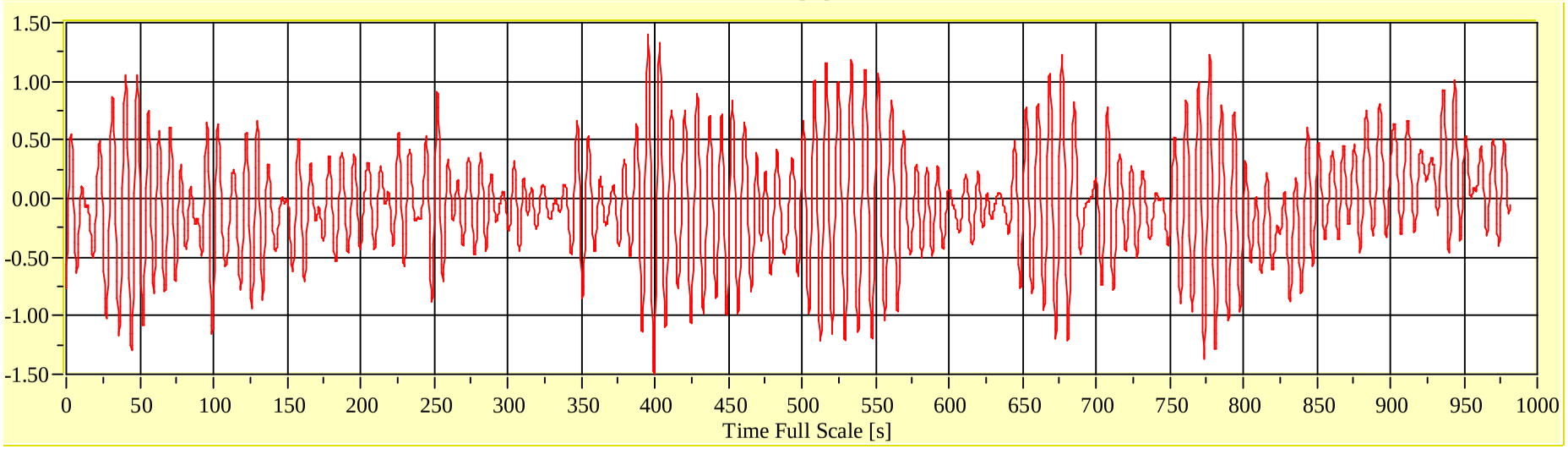


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

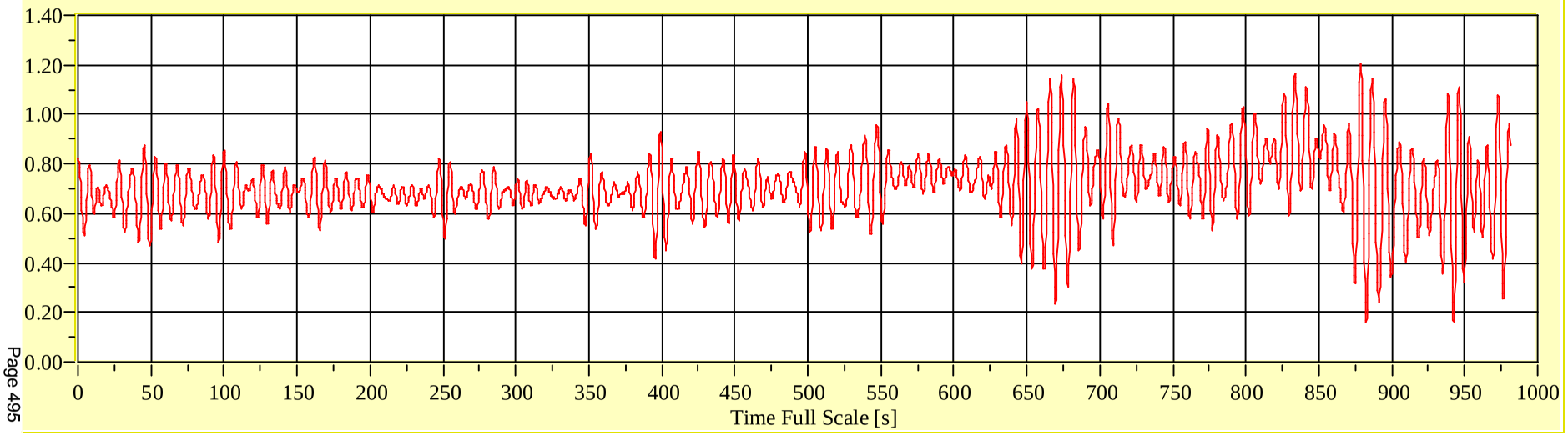
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-01	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



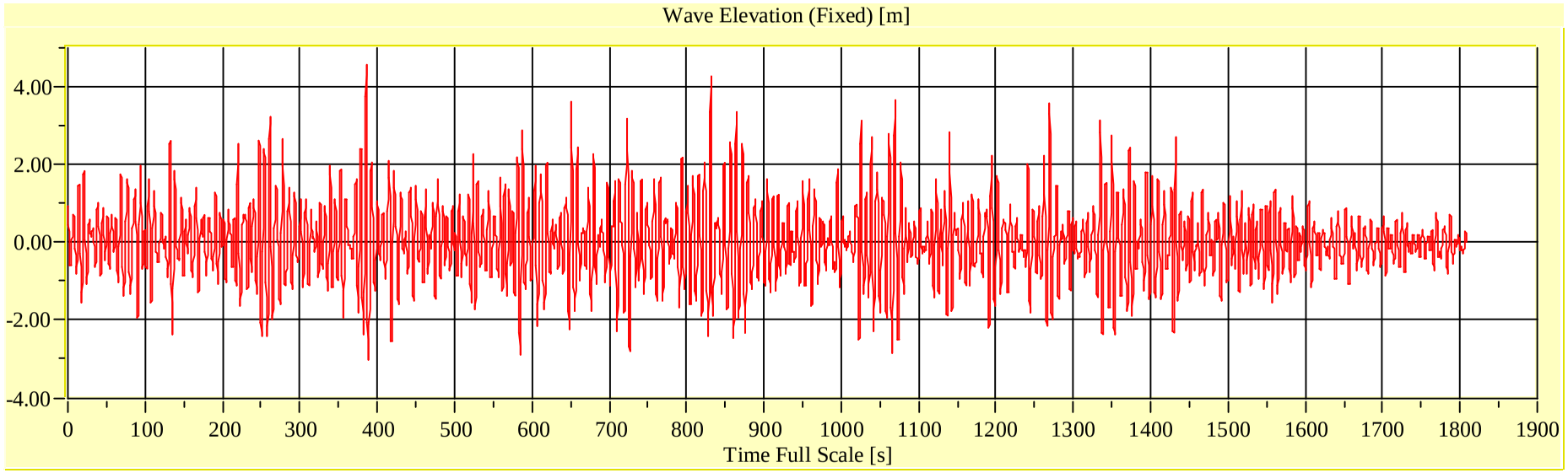
Pitch Angle [deg] (Stern Trim = Positiv)

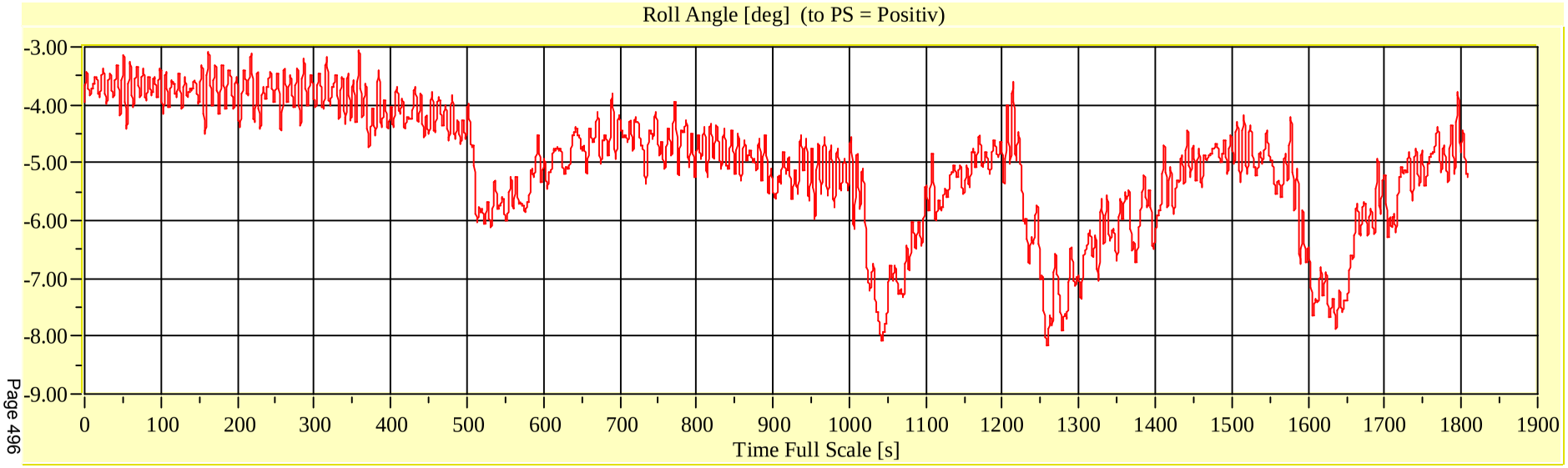


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-02	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

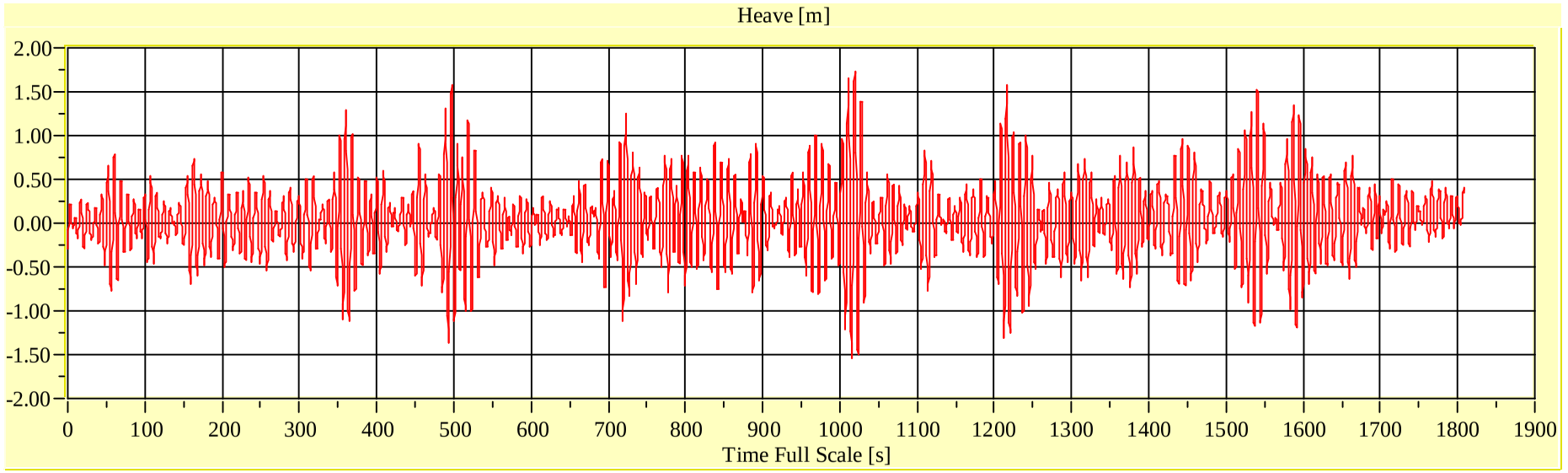


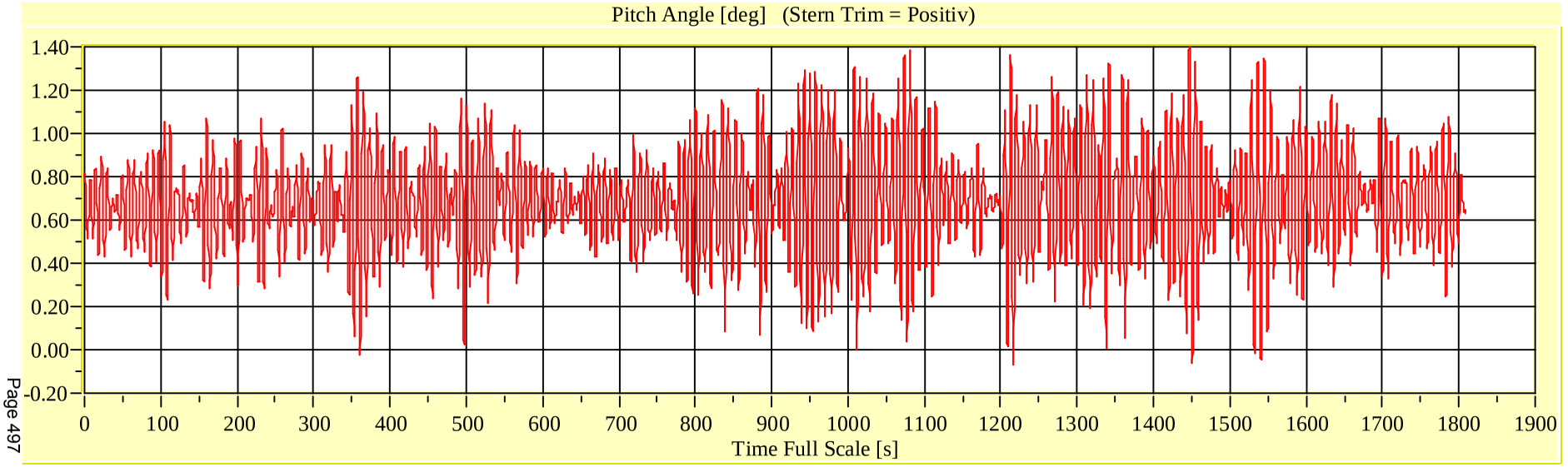


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-02	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

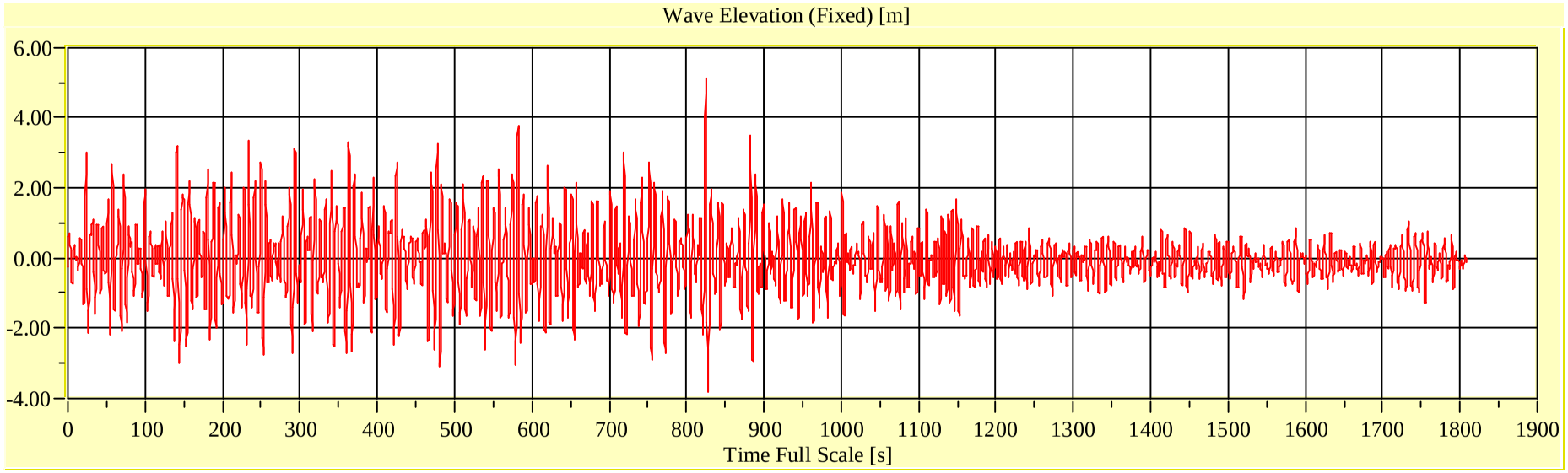


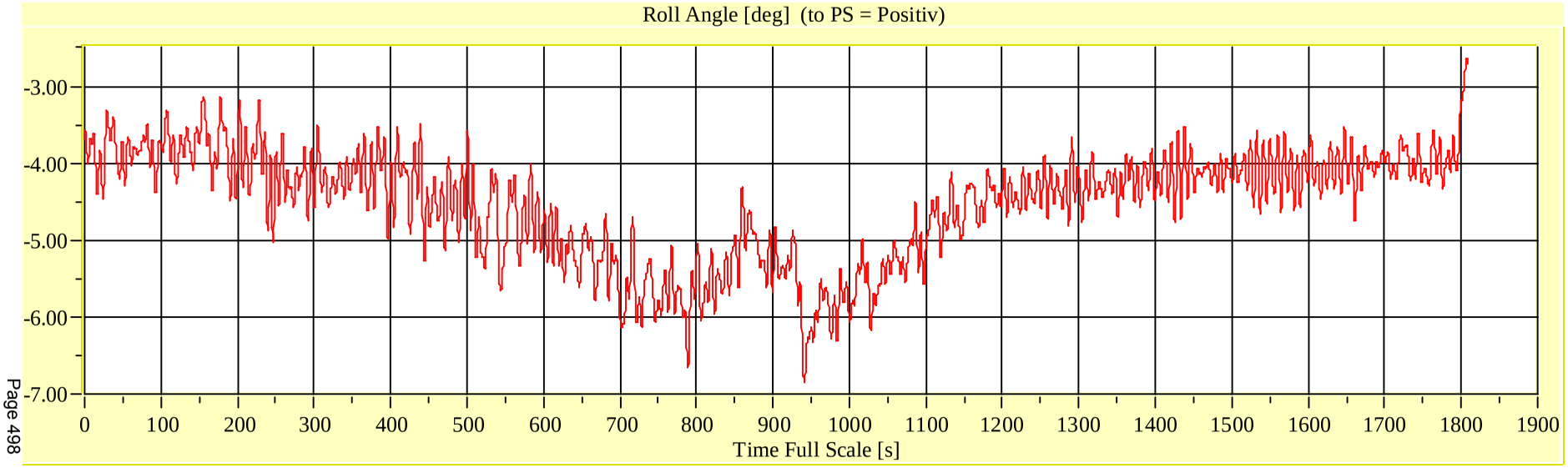


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-03	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



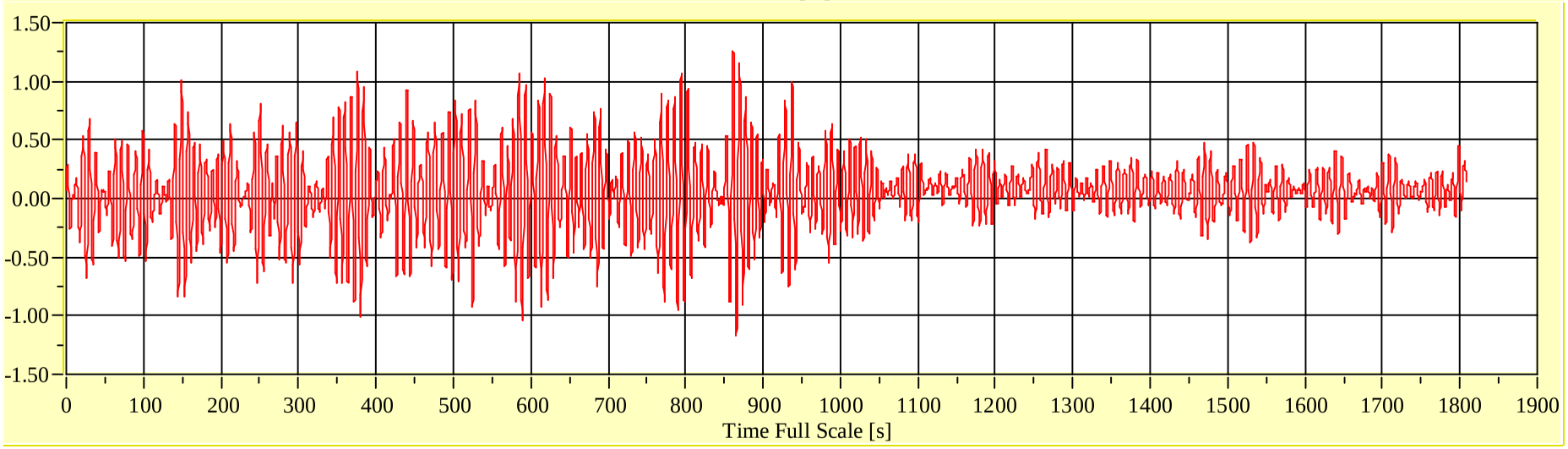


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

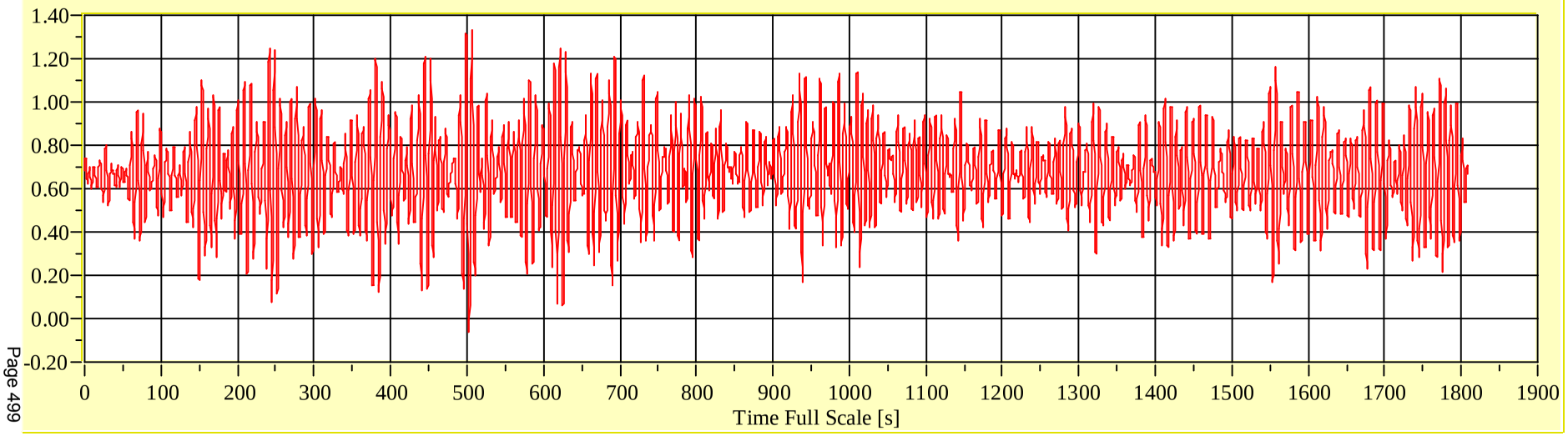
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-03	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



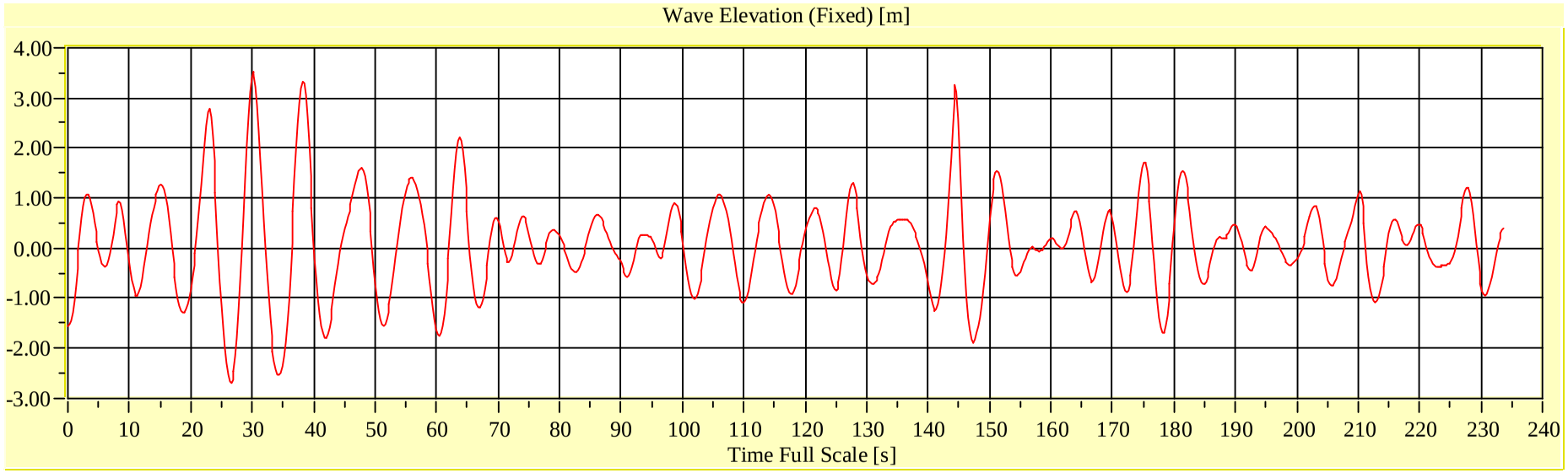
Pitch Angle [deg] (Stern Trim = Positiv)

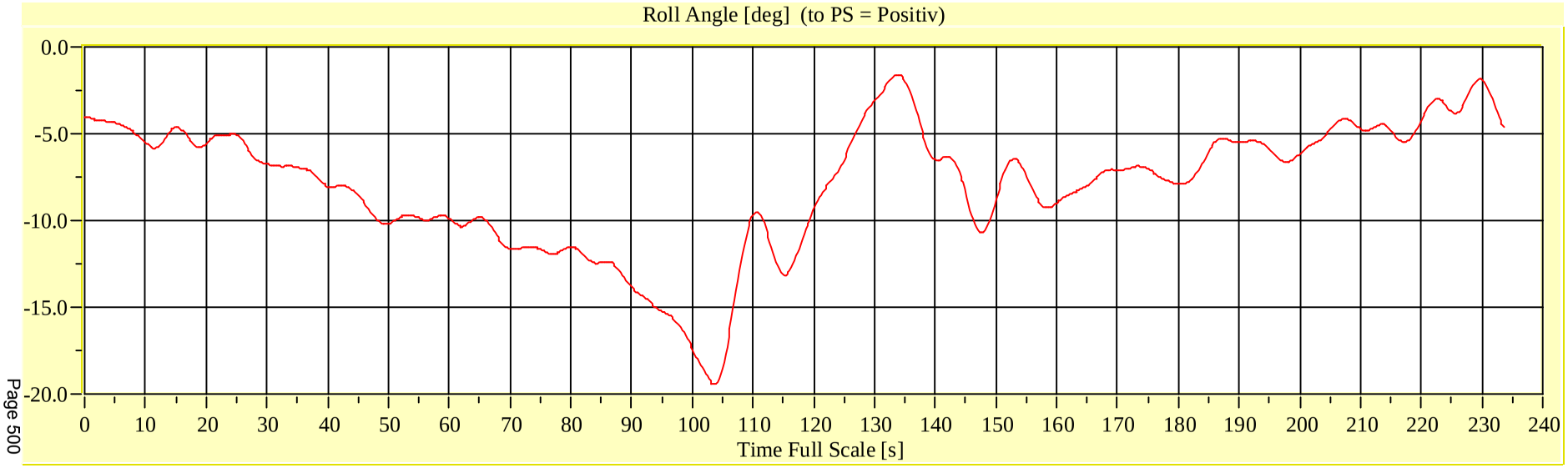


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-04	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



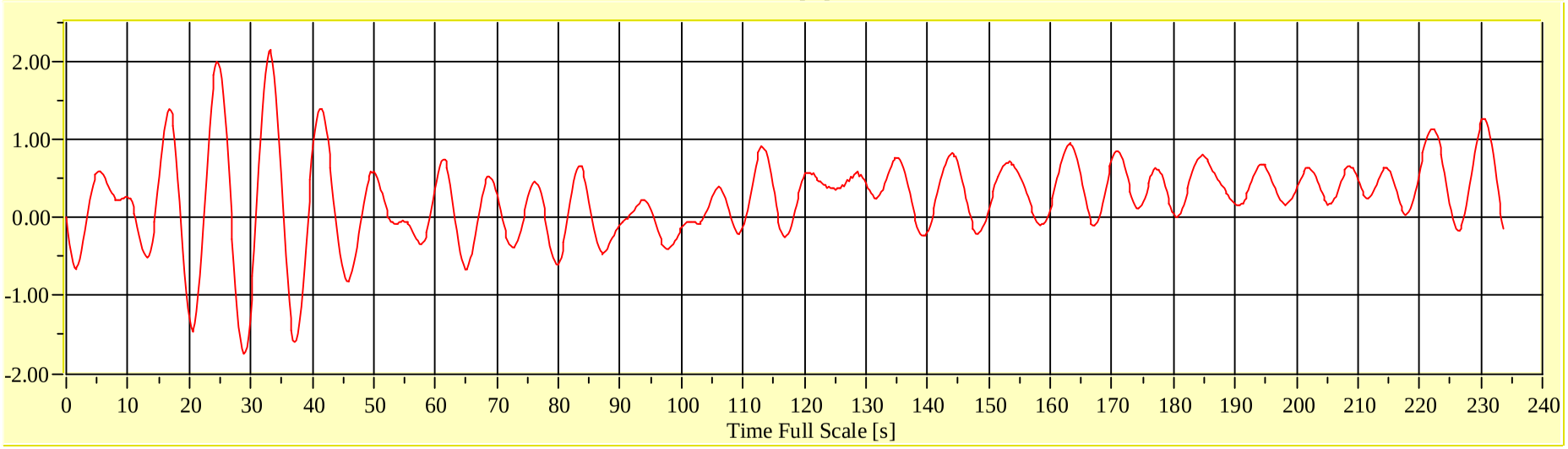


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

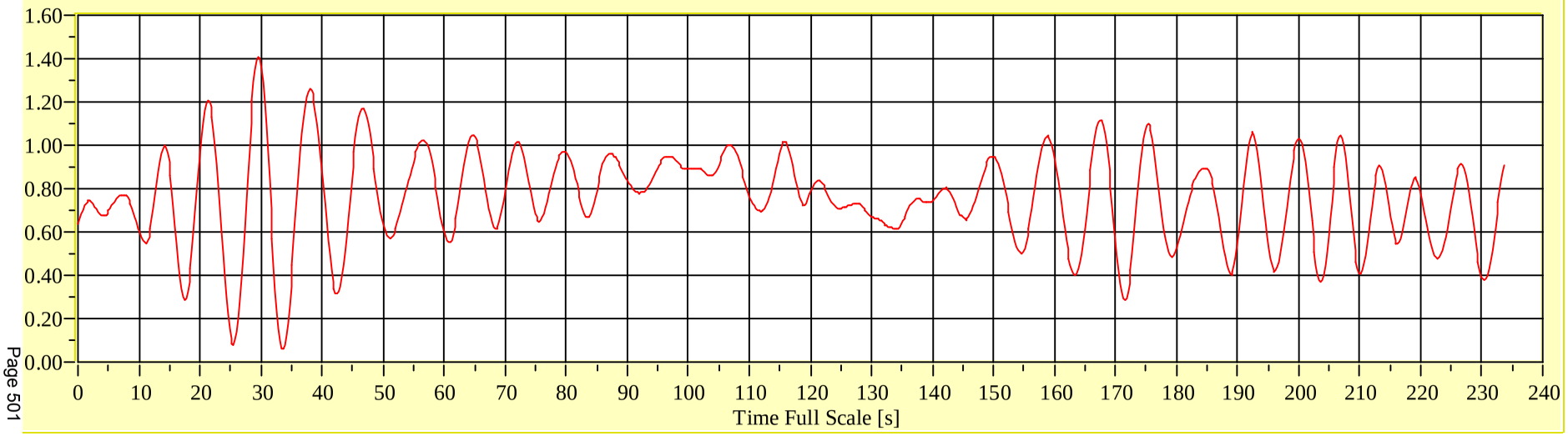
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-04	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



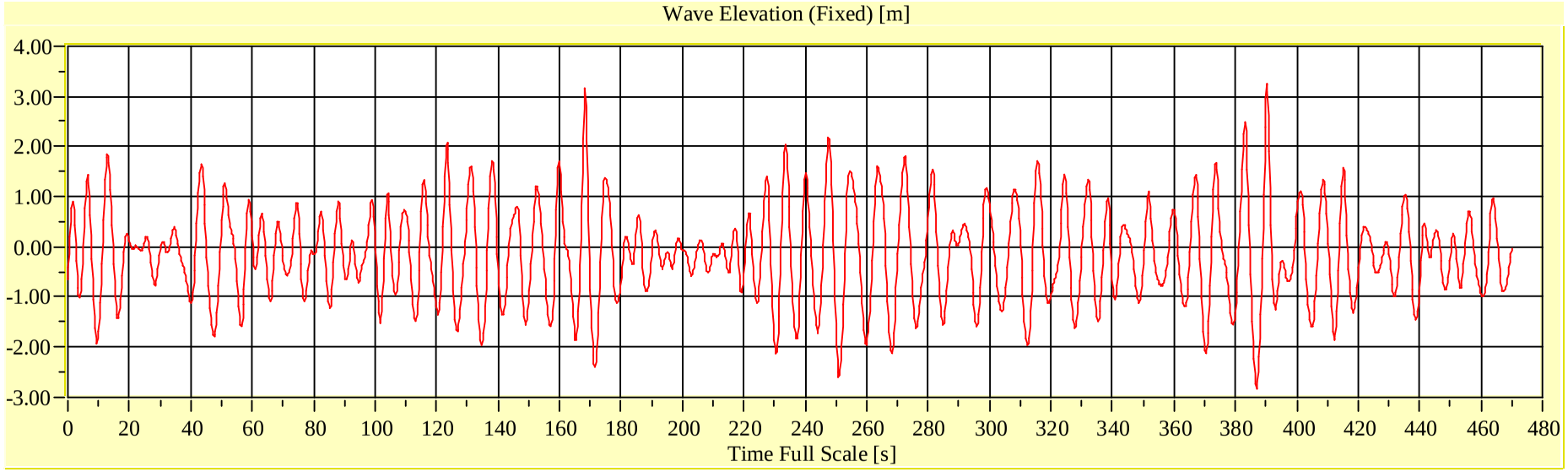
Pitch Angle [deg] (Stern Trim = Positiv)

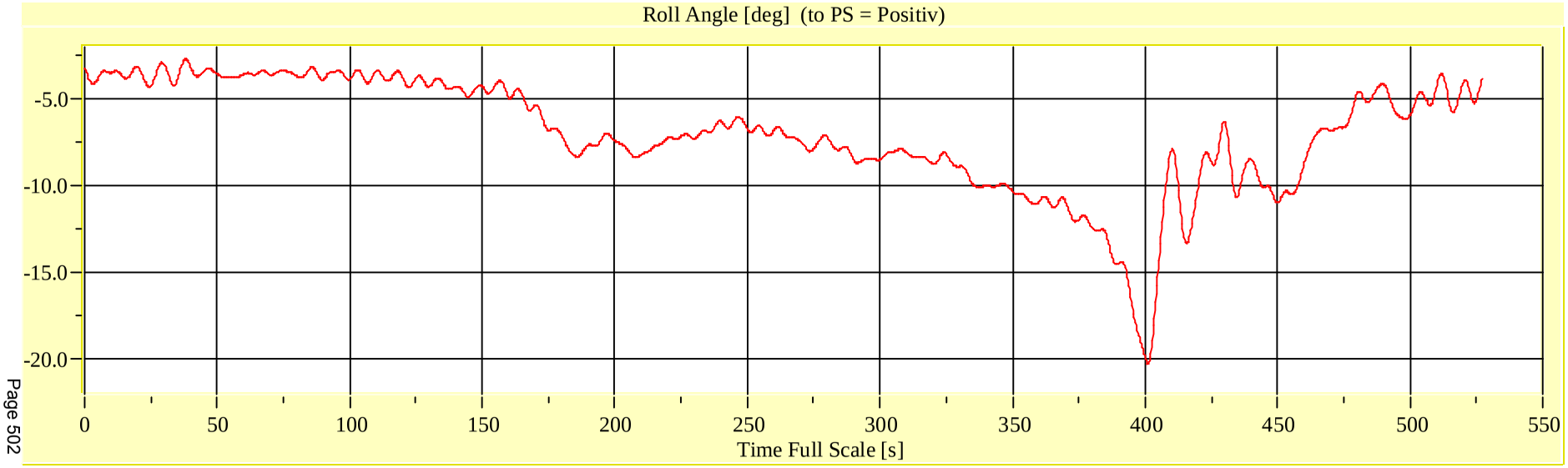


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-05	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

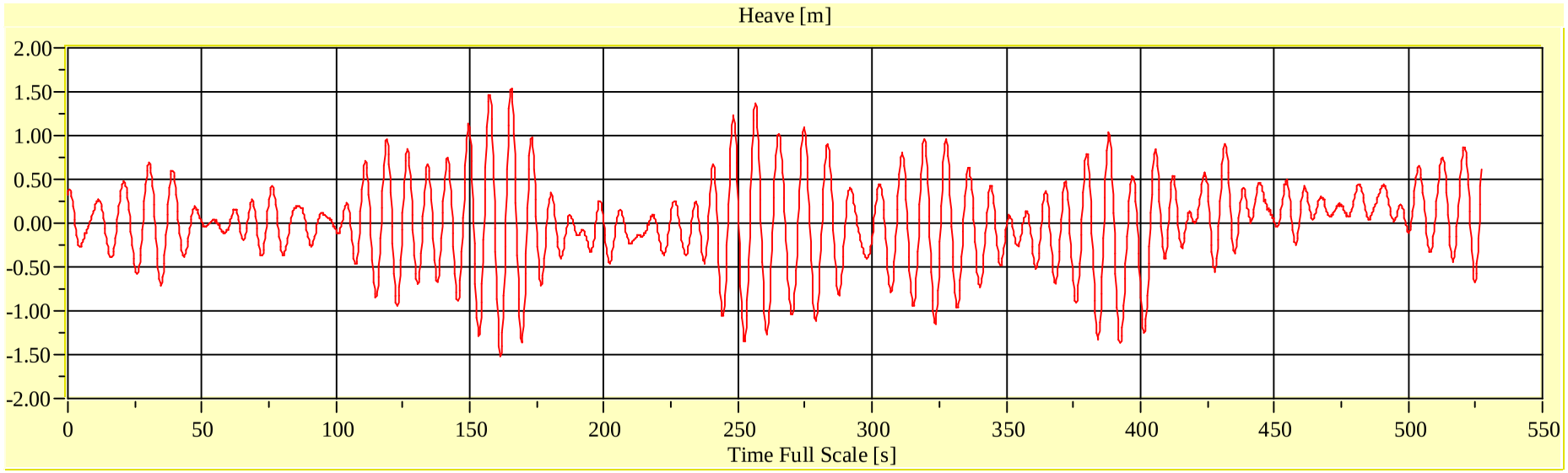


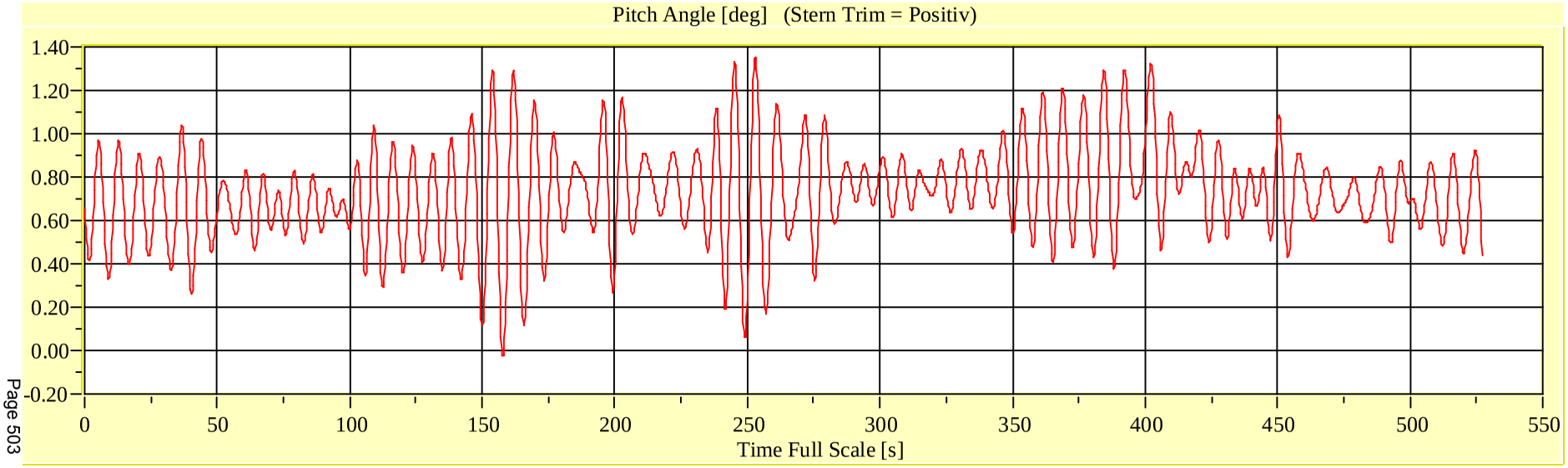


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-05	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

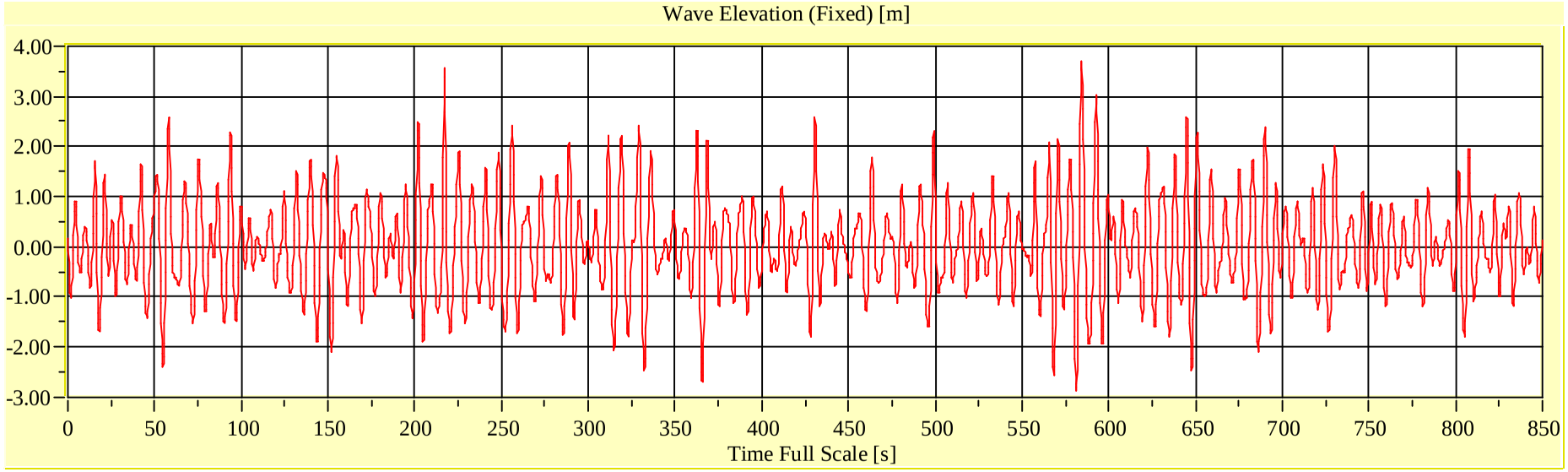


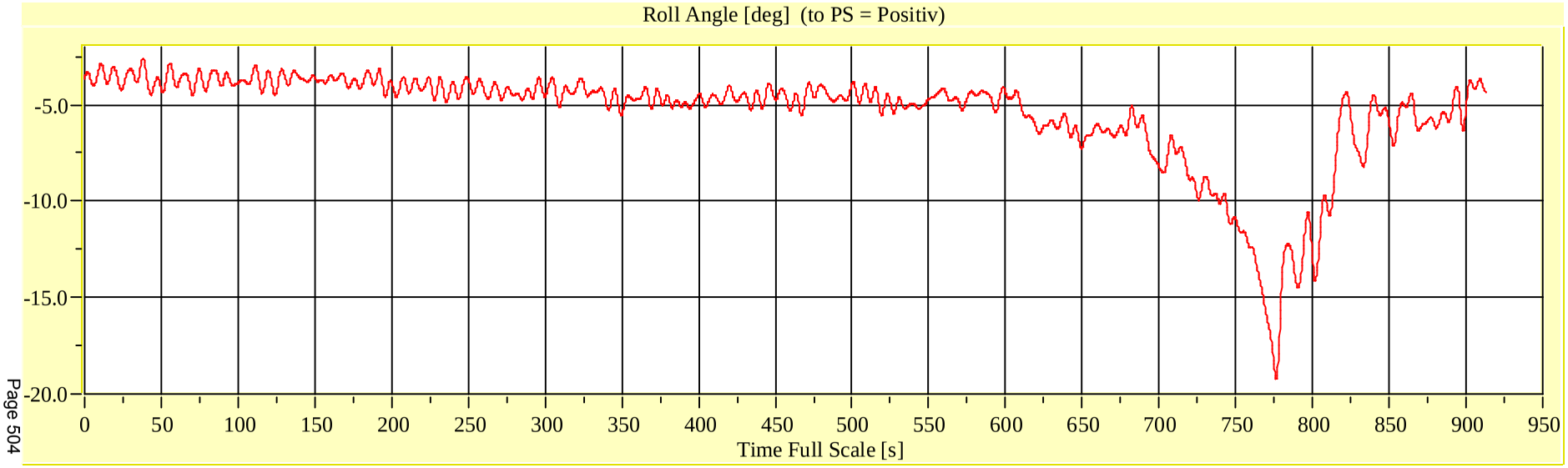


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-06	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3



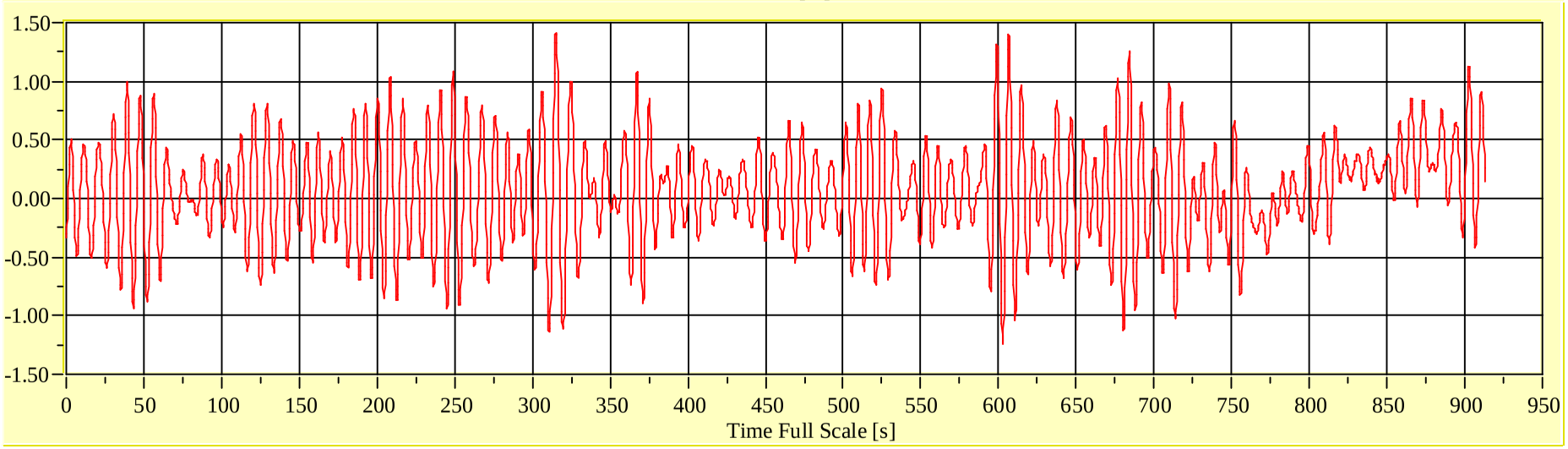


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

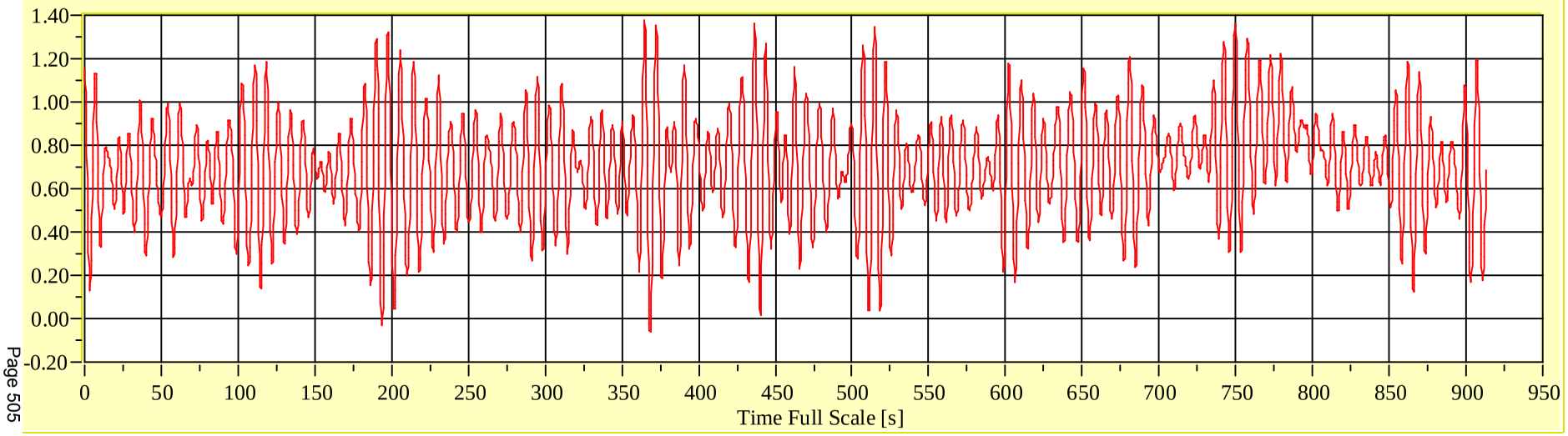
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-06	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

Heave [m]



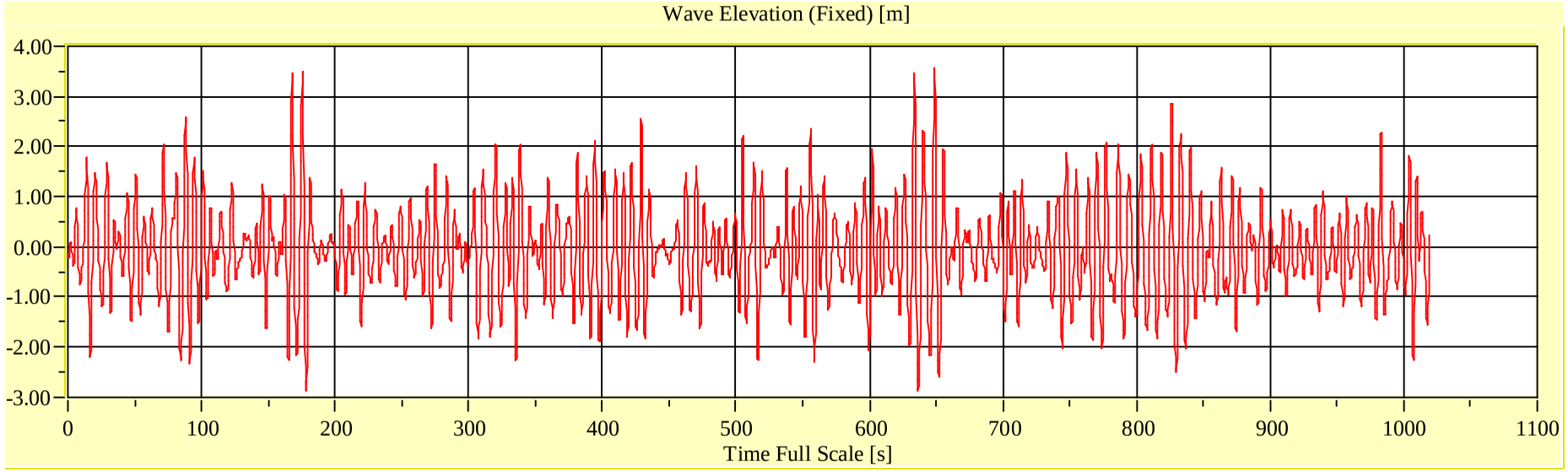
Pitch Angle [deg] (Stern Trim = Positiv)

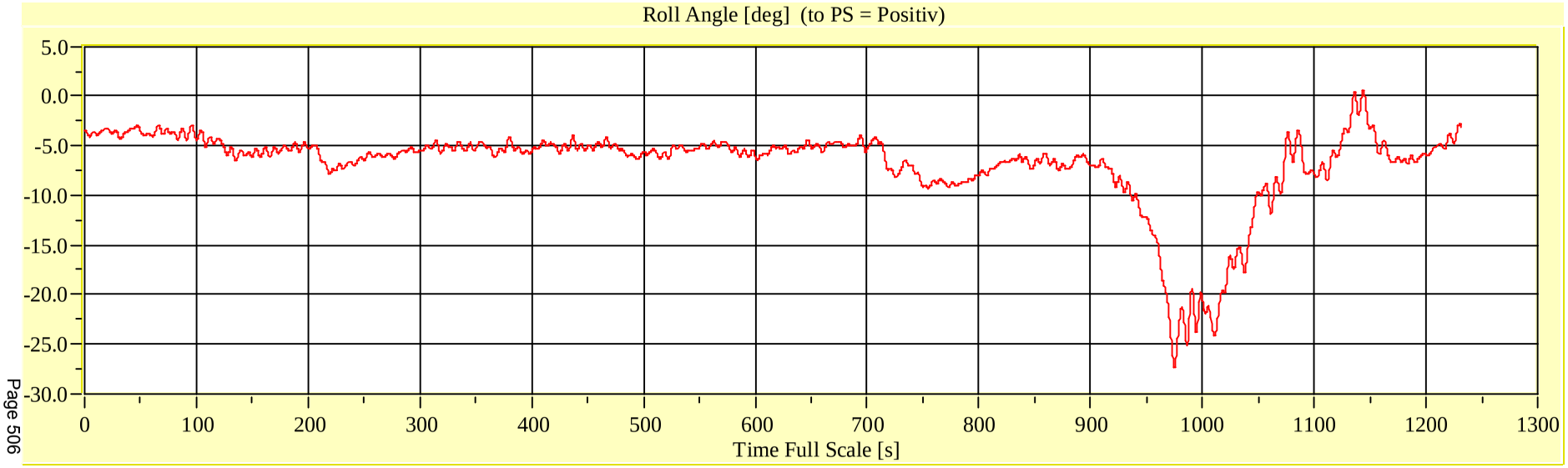


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-07	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

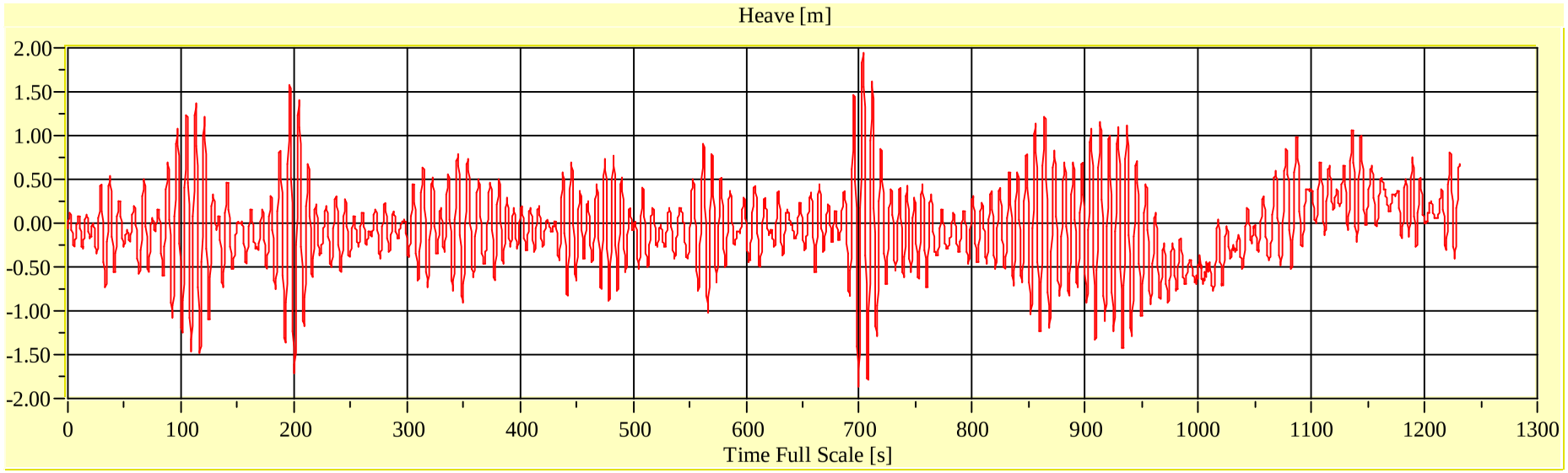


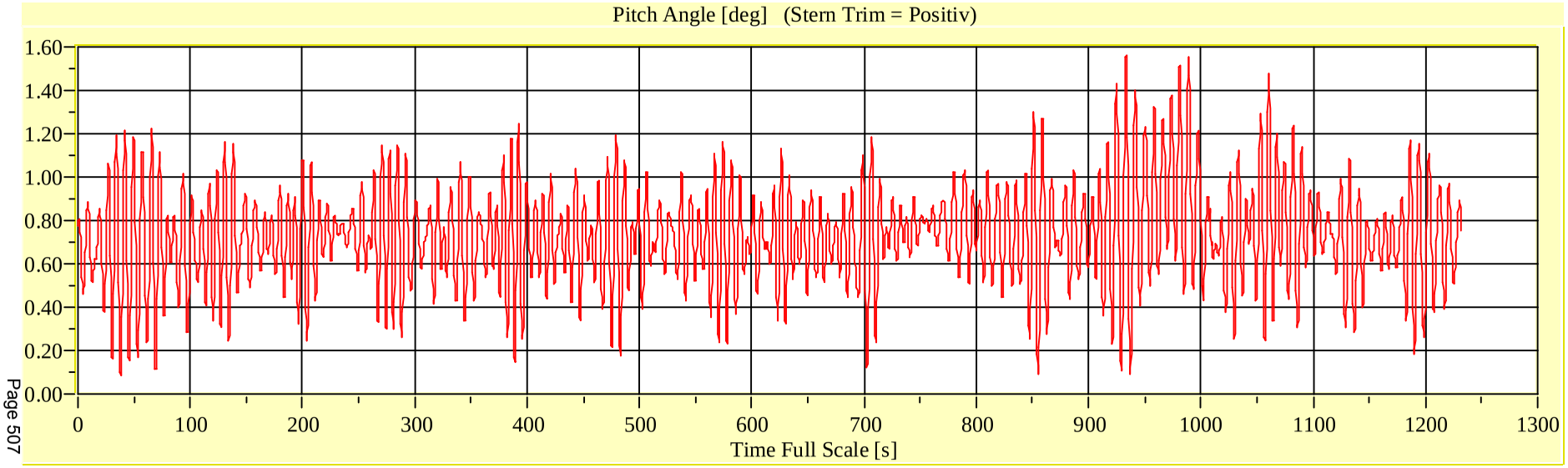


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-07	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

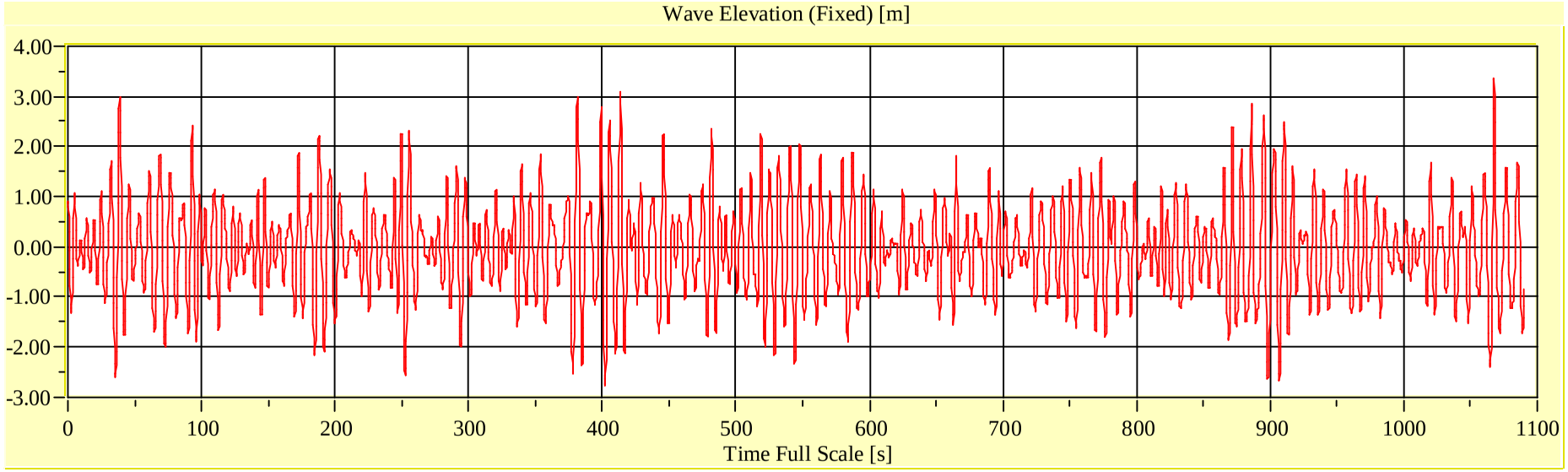


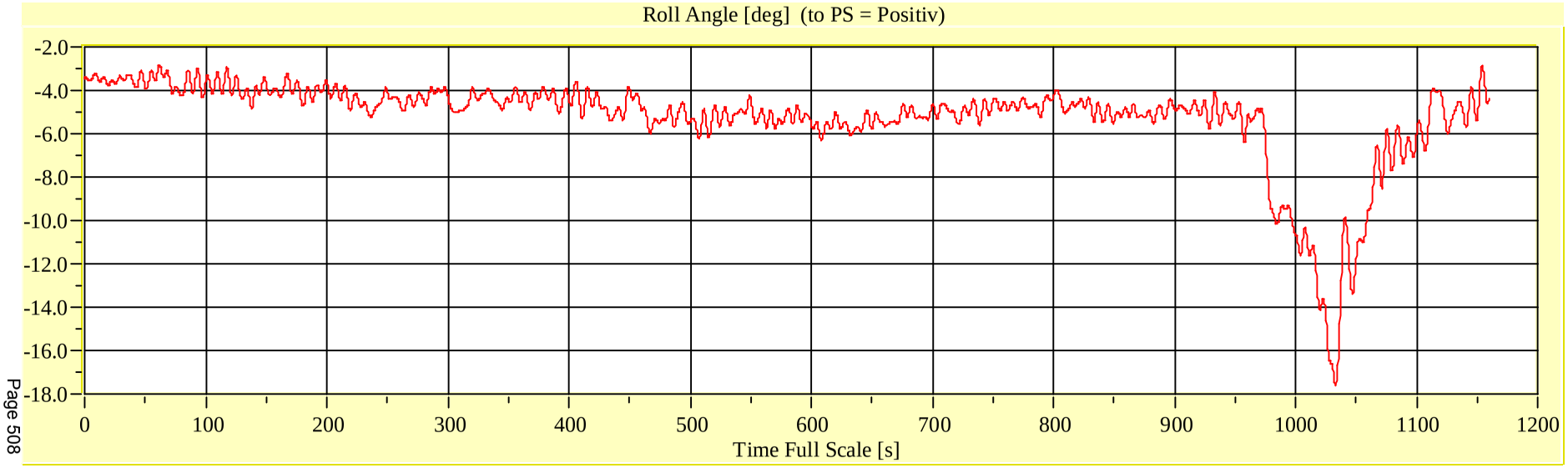


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-08	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

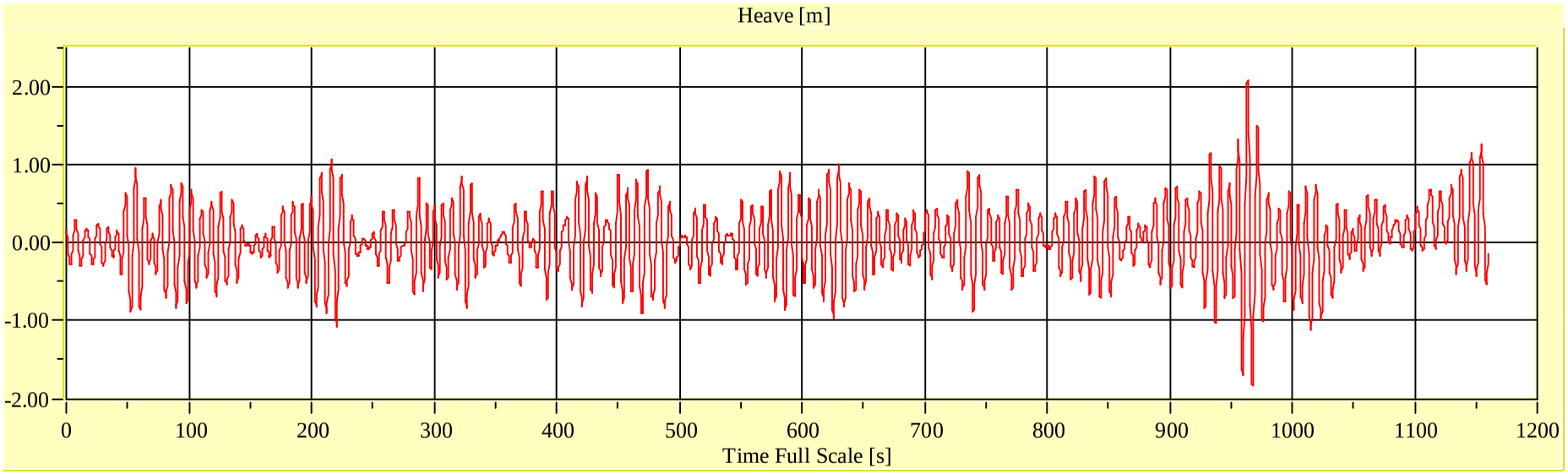


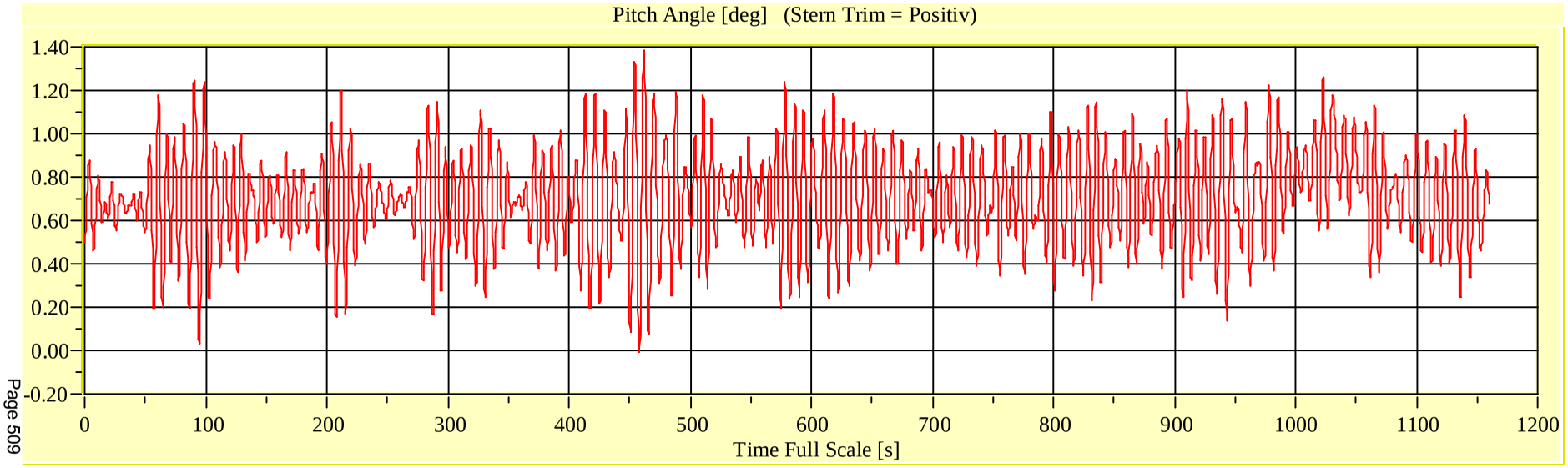


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-08	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

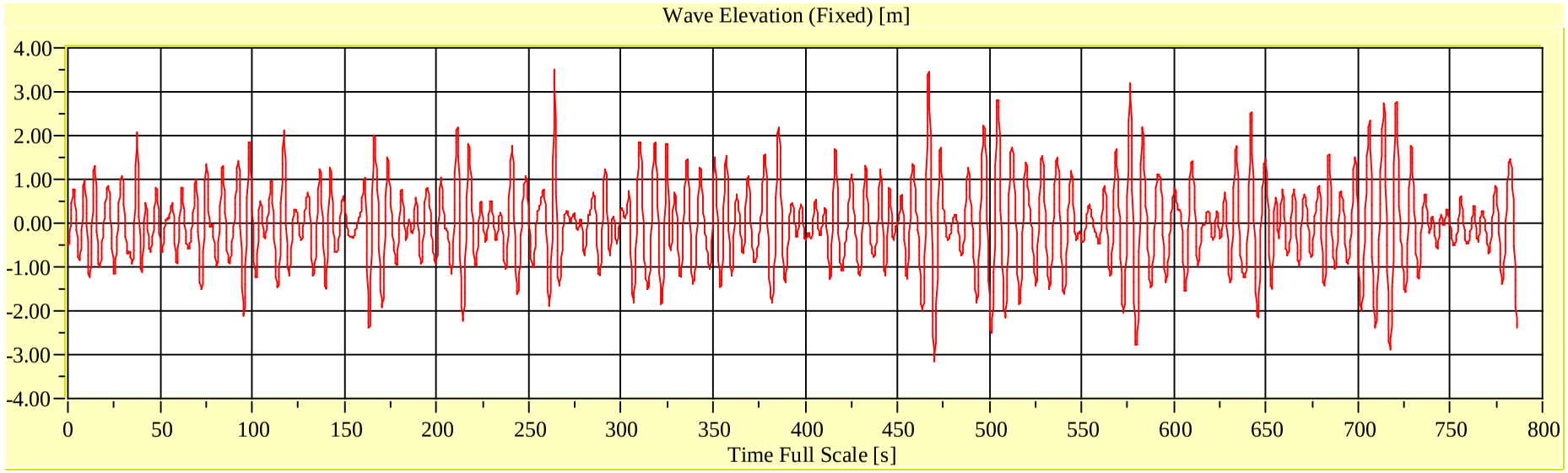


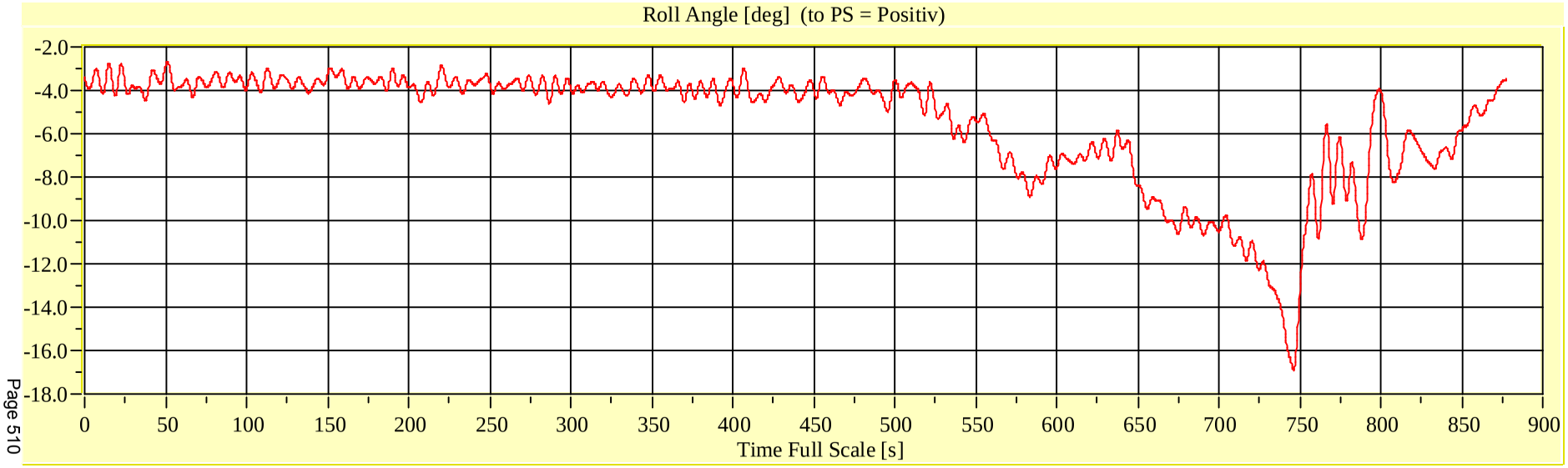


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-09	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

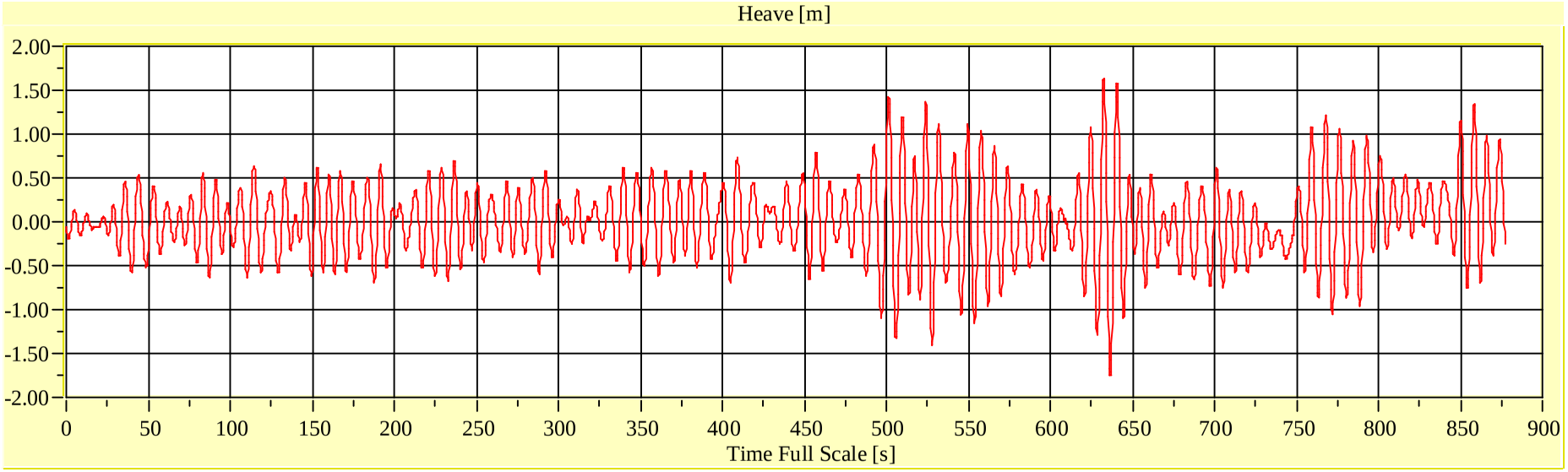


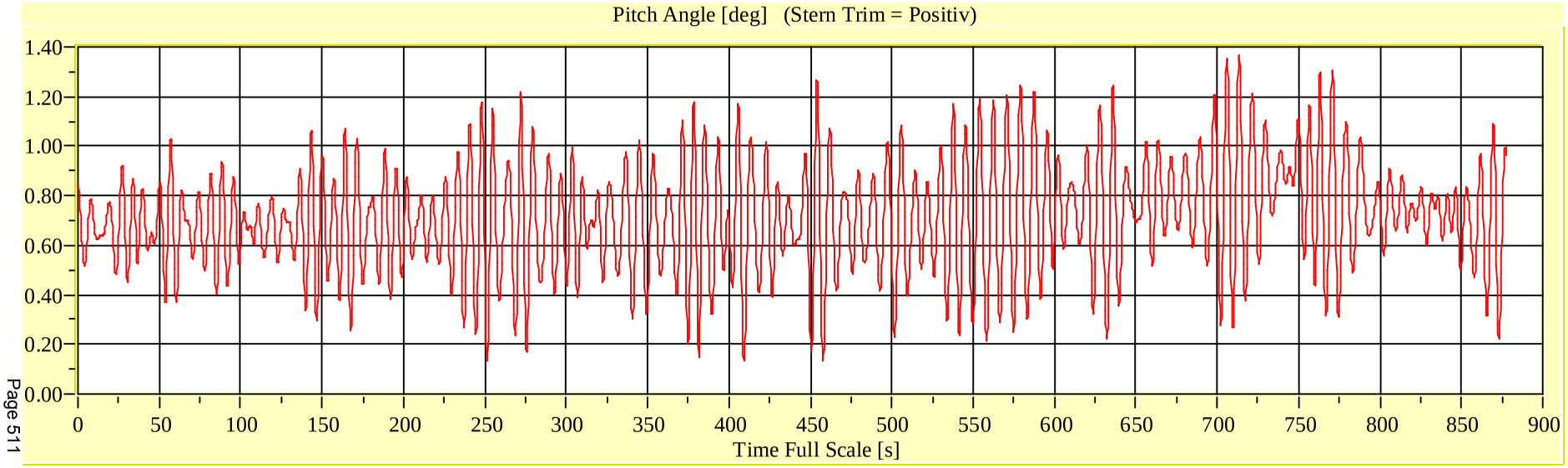


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-09	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

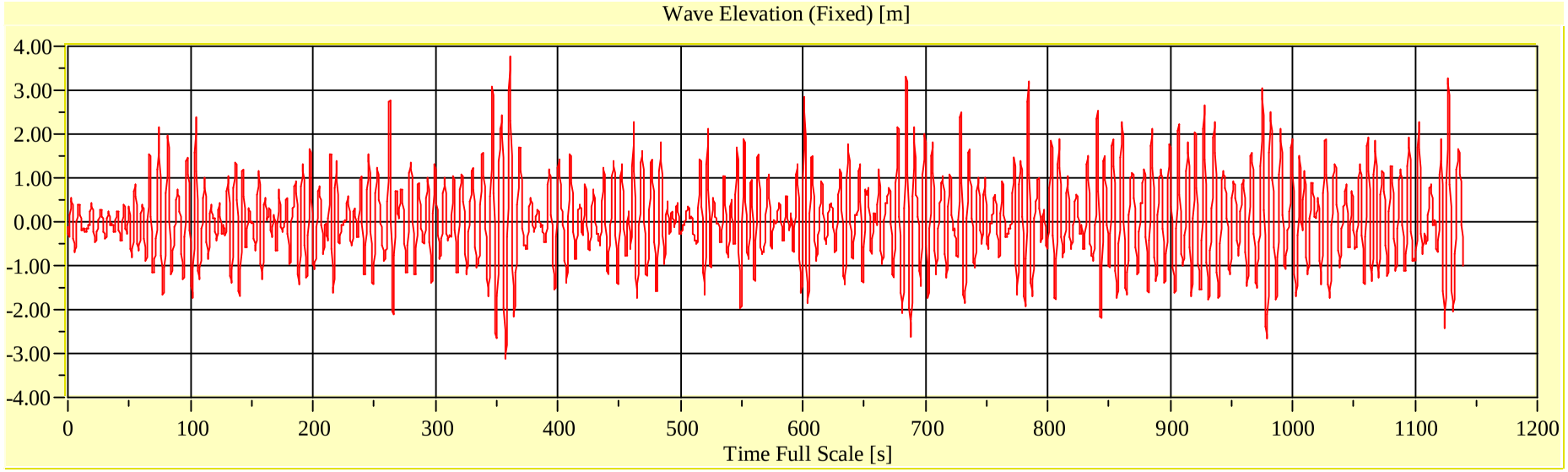


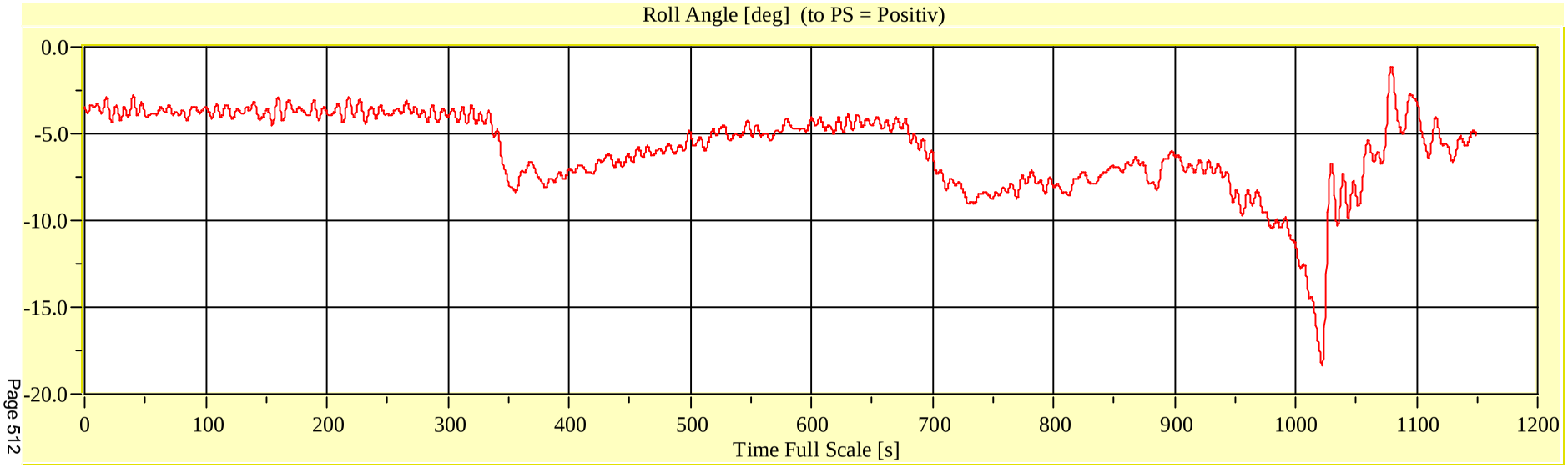


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-10	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

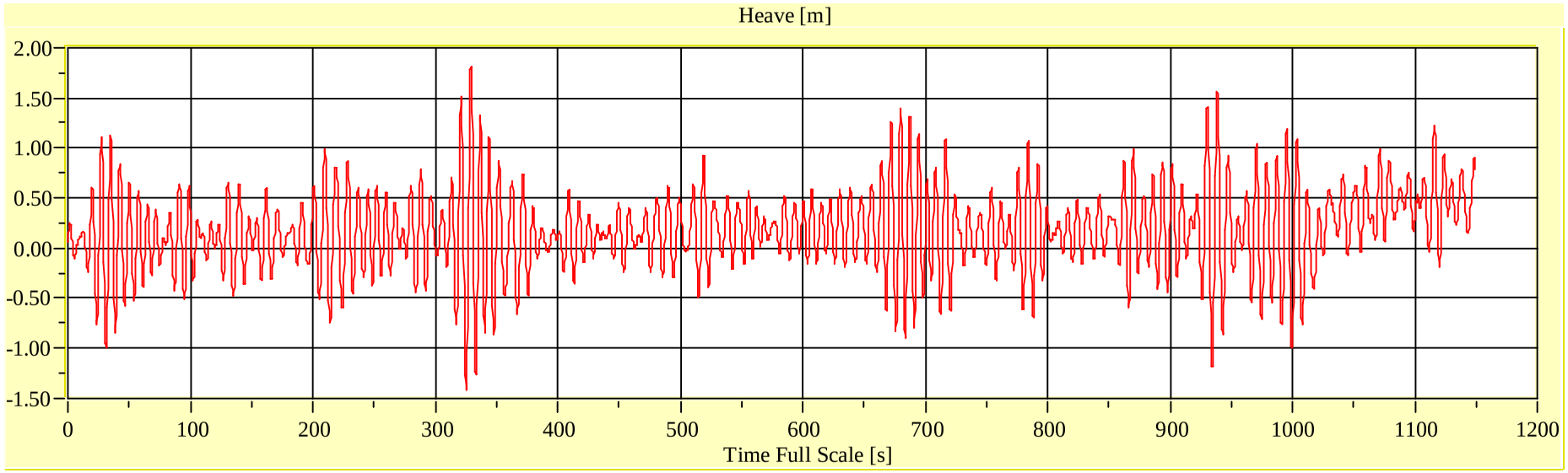


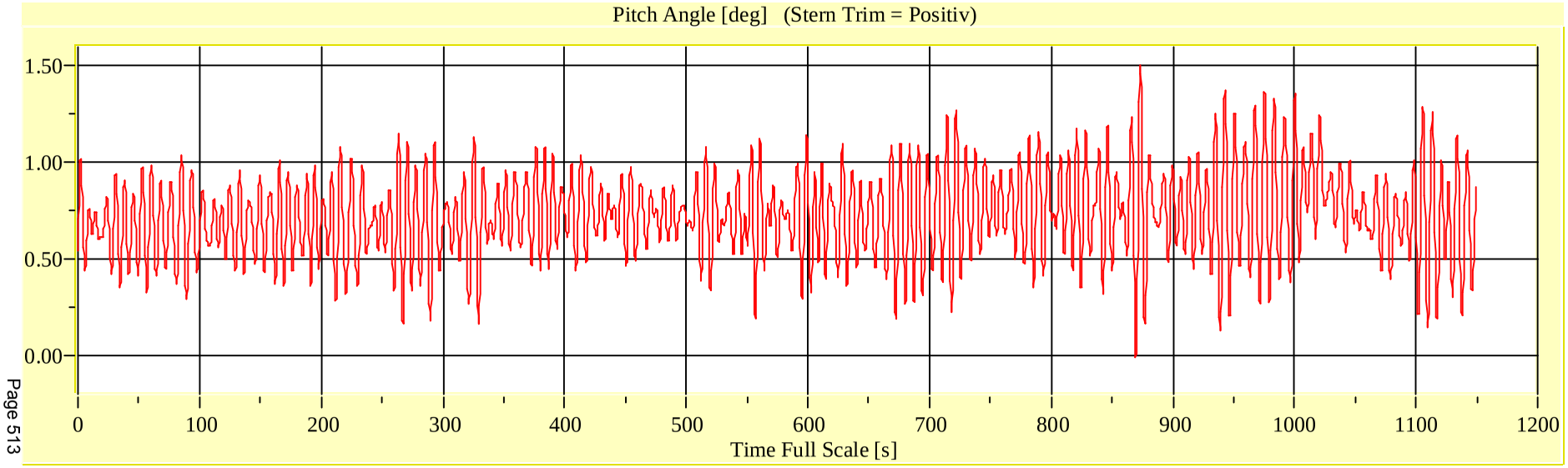


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-10	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

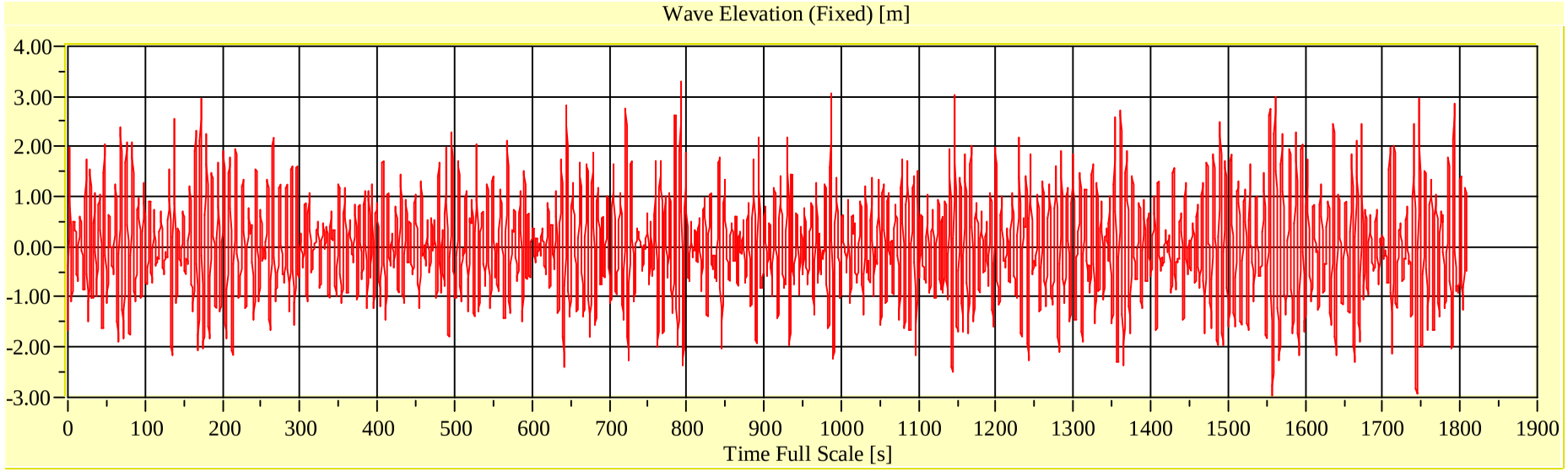


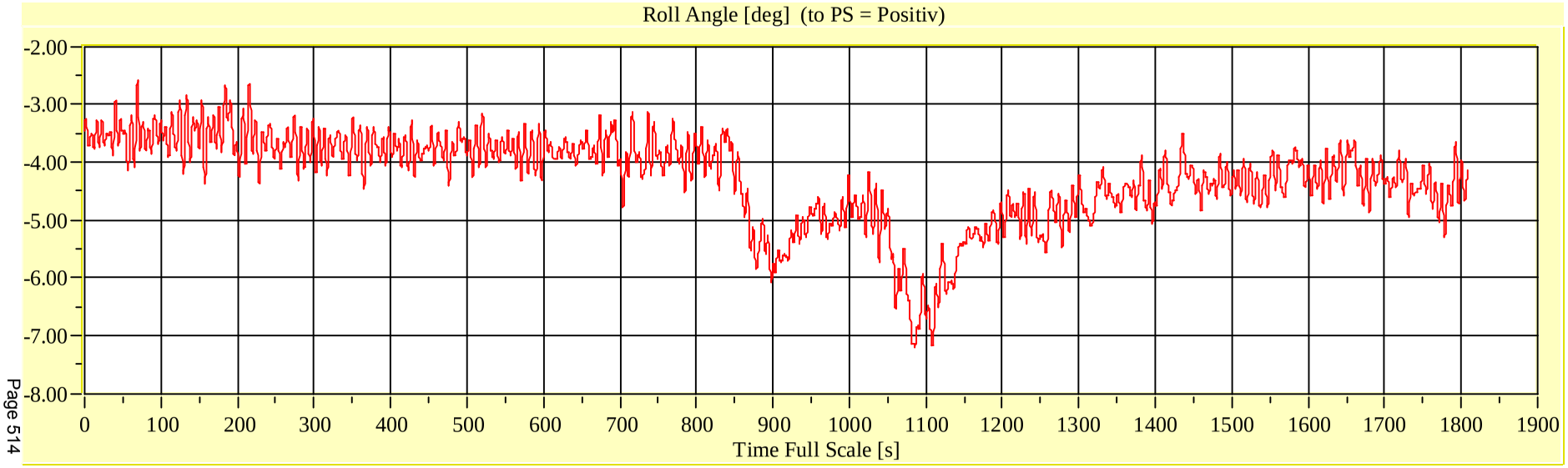


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-11	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

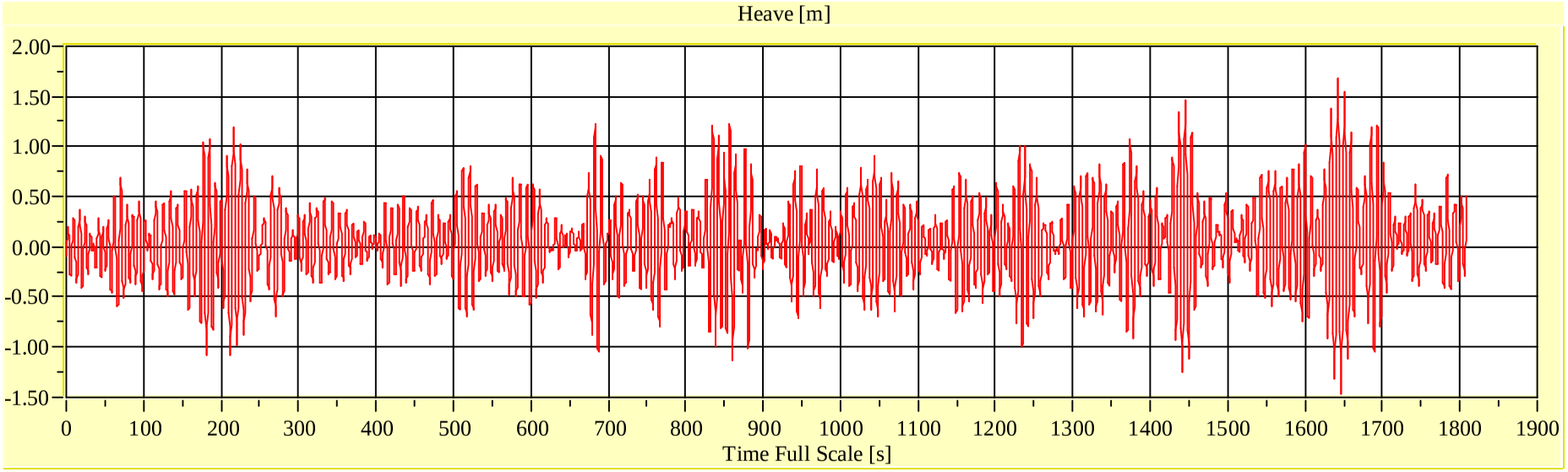


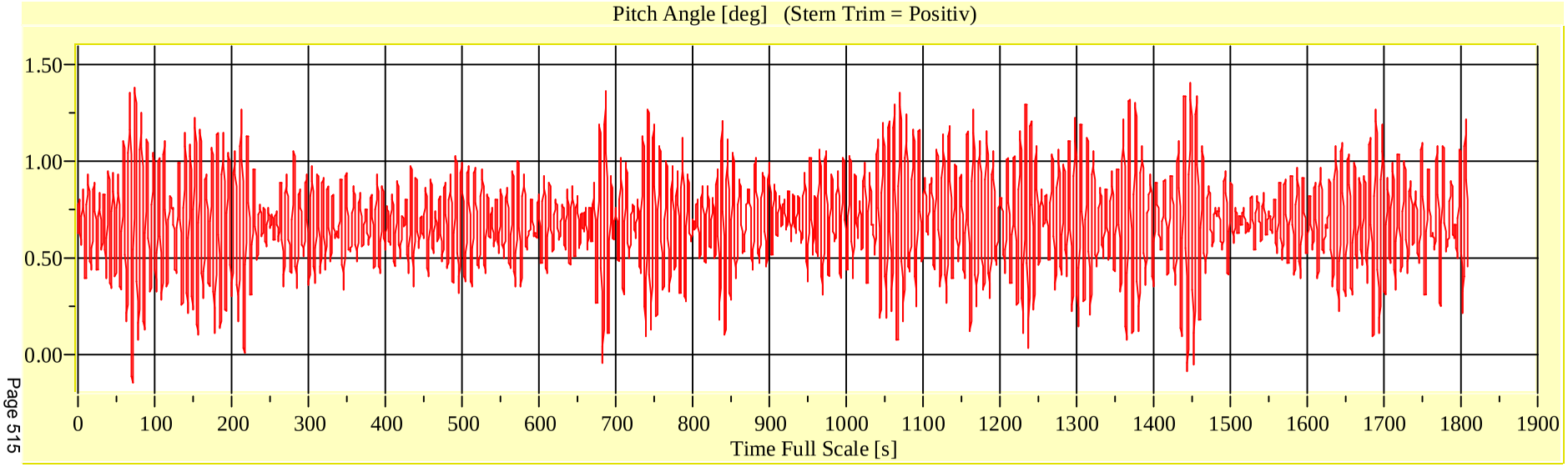


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29721-11	Target Waves: Hs = 3,75 m Tp = 7,746 s	gamma = 3,3

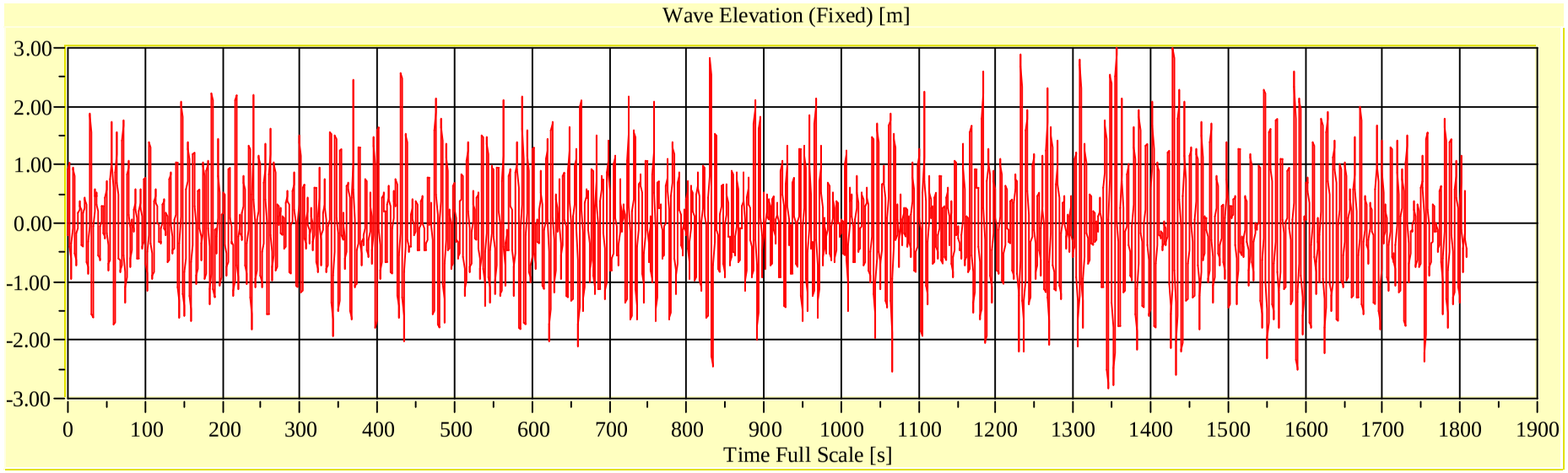


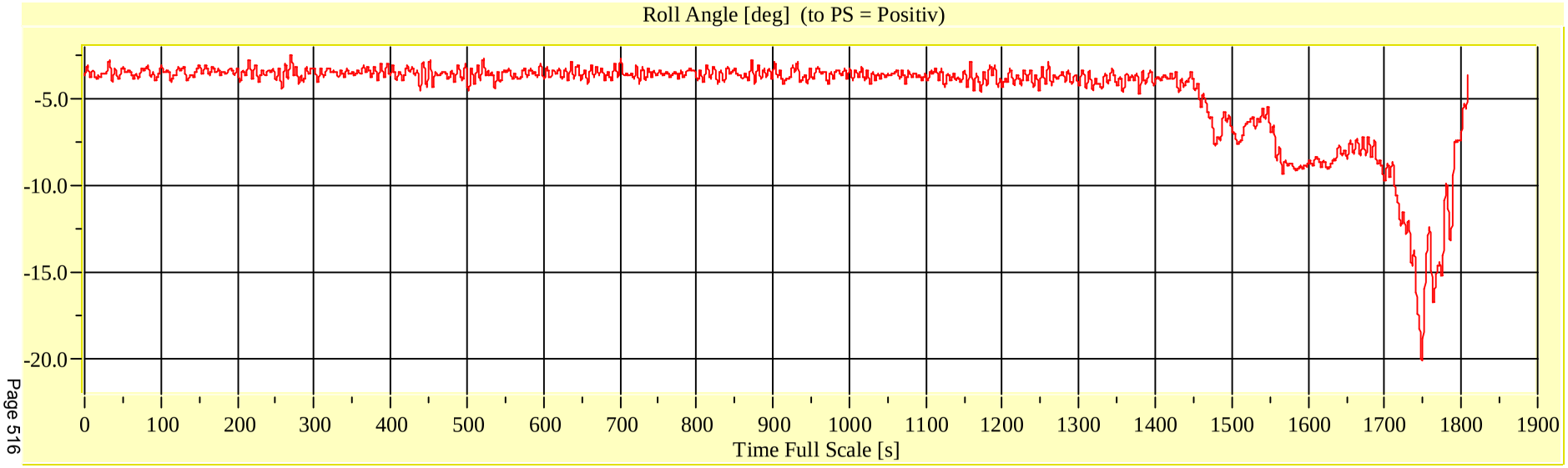


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

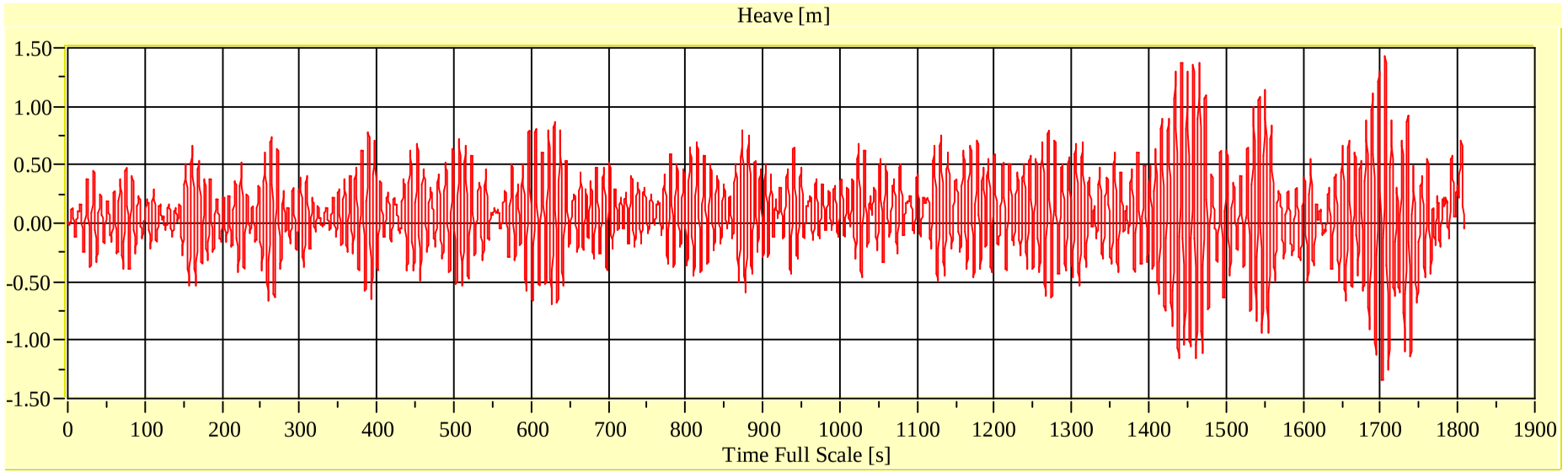


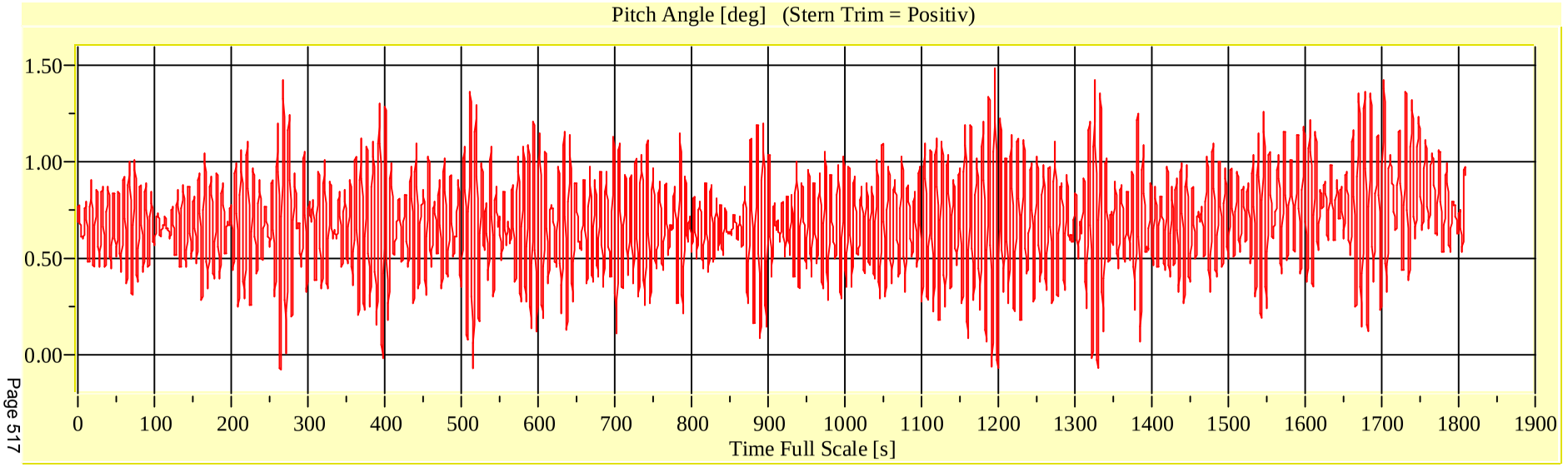


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-01	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

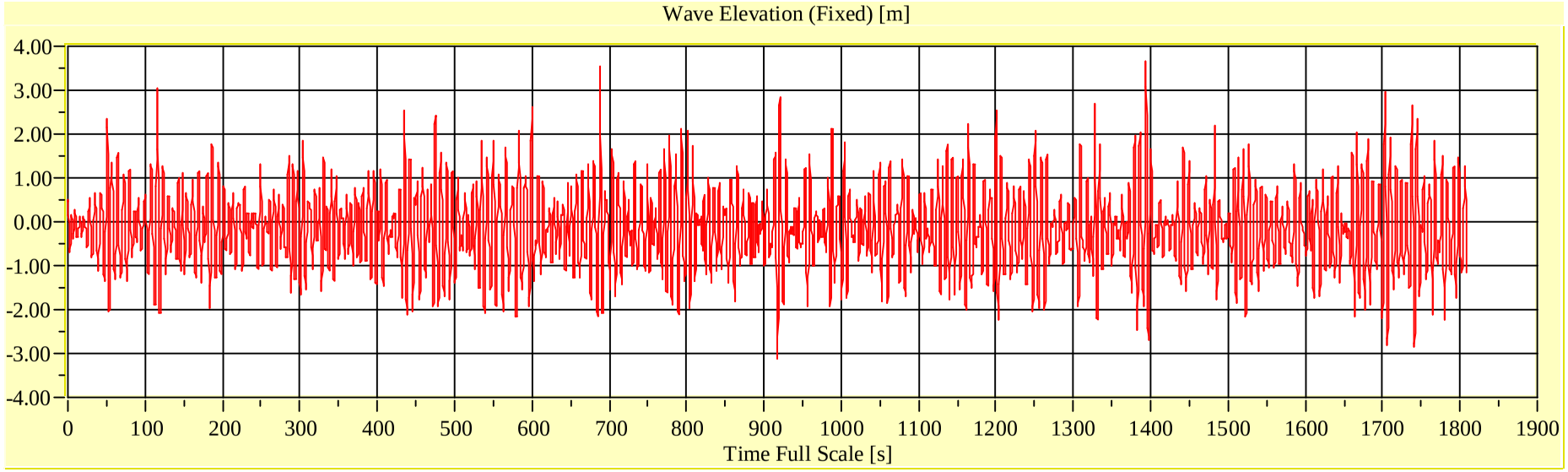


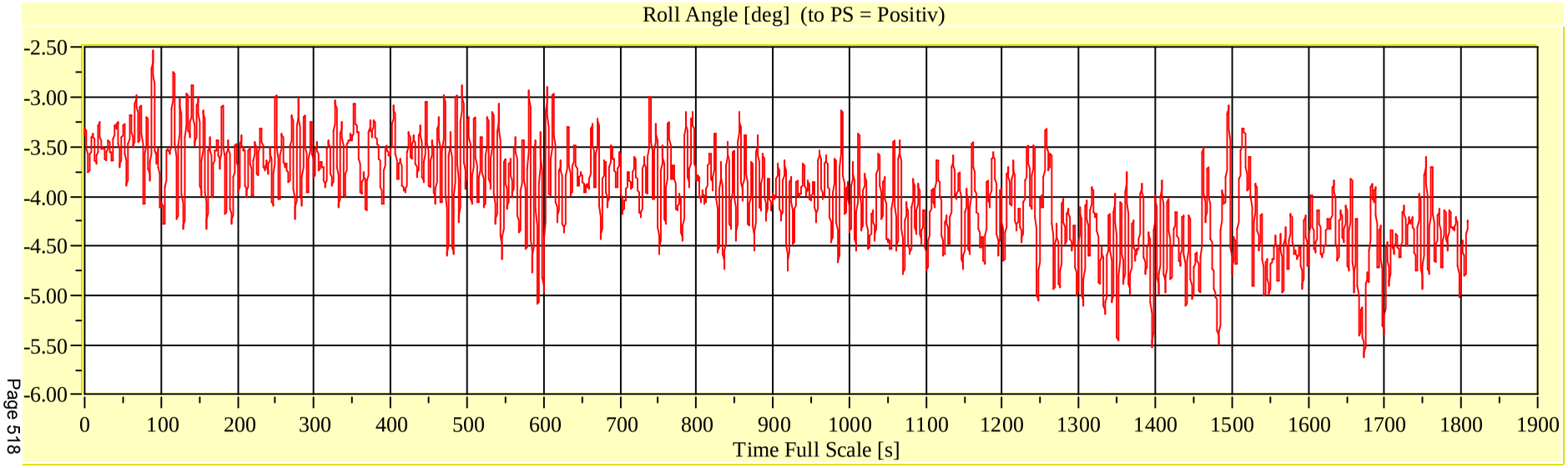


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

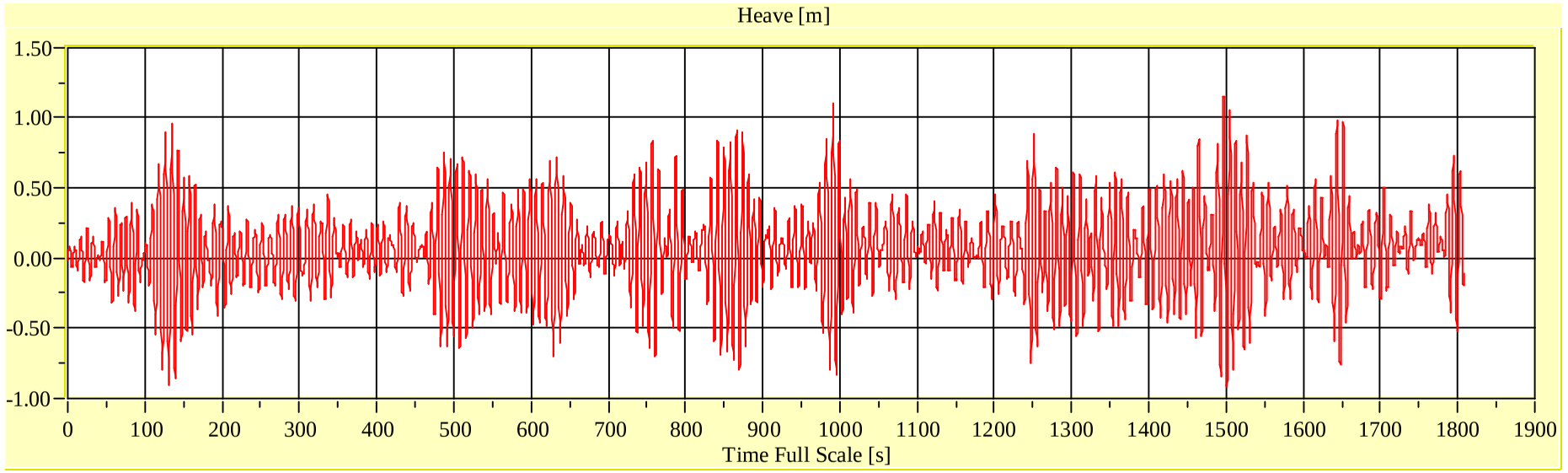


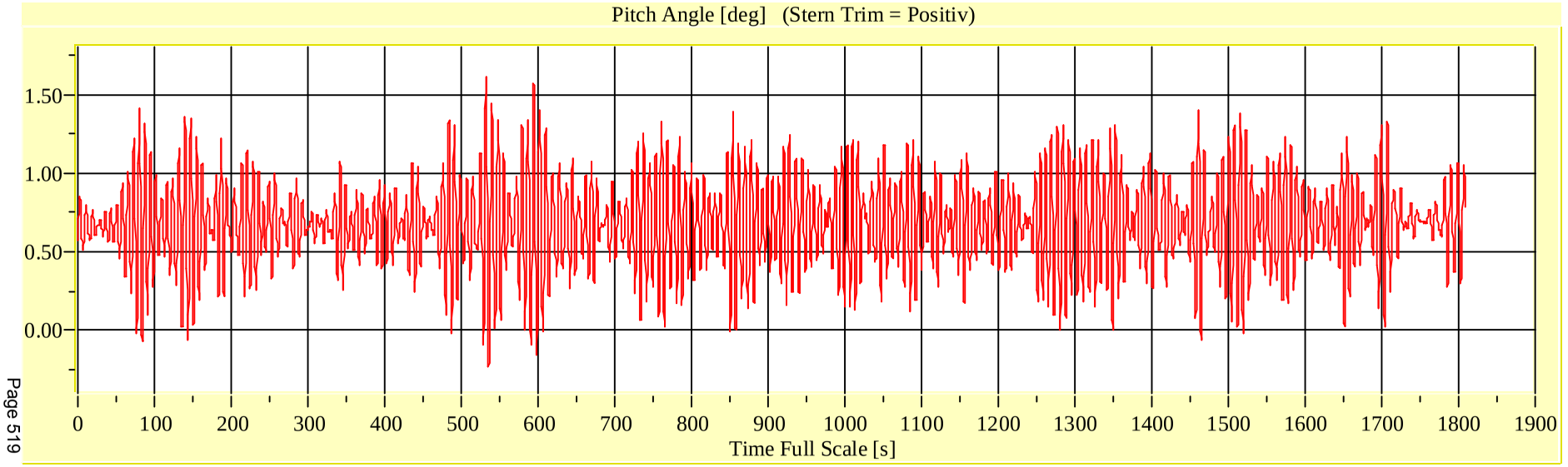


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-02	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

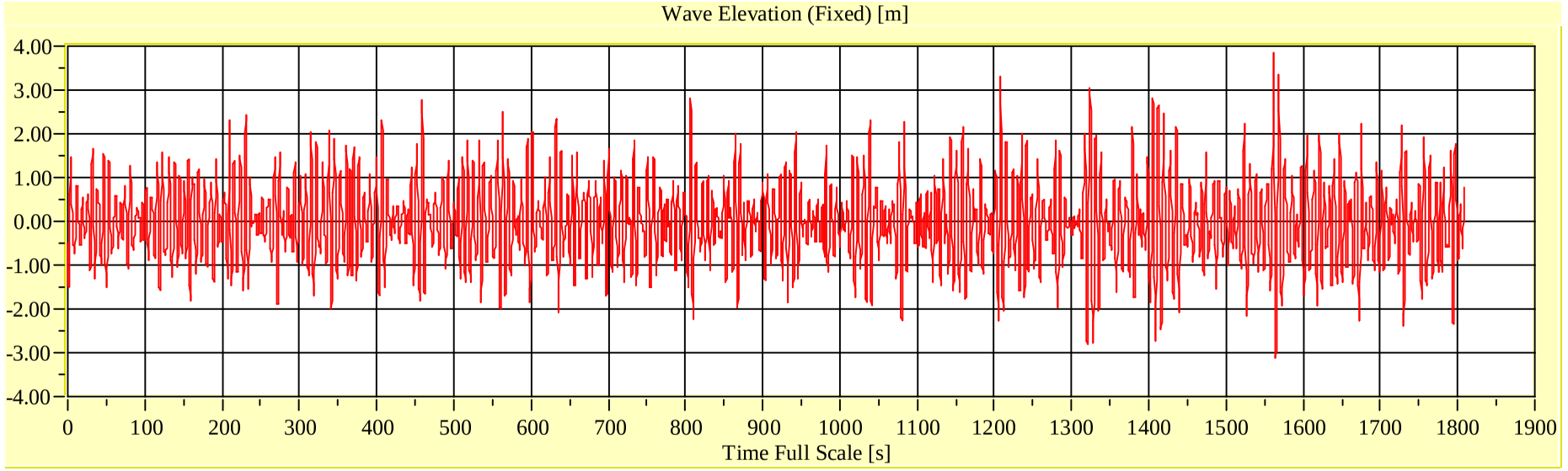


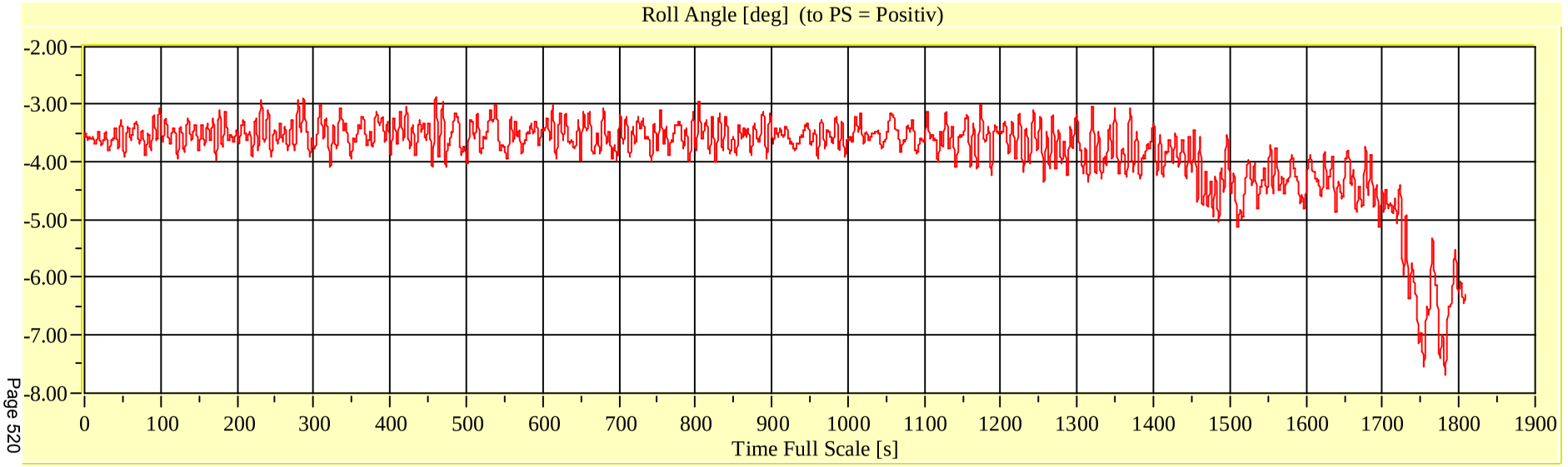


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

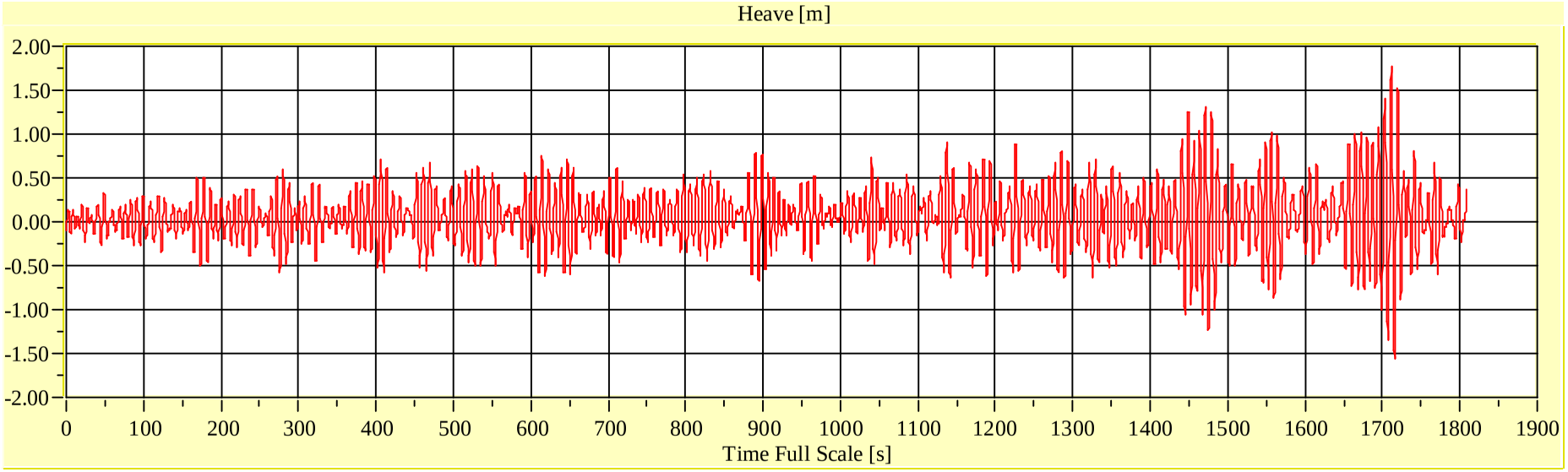


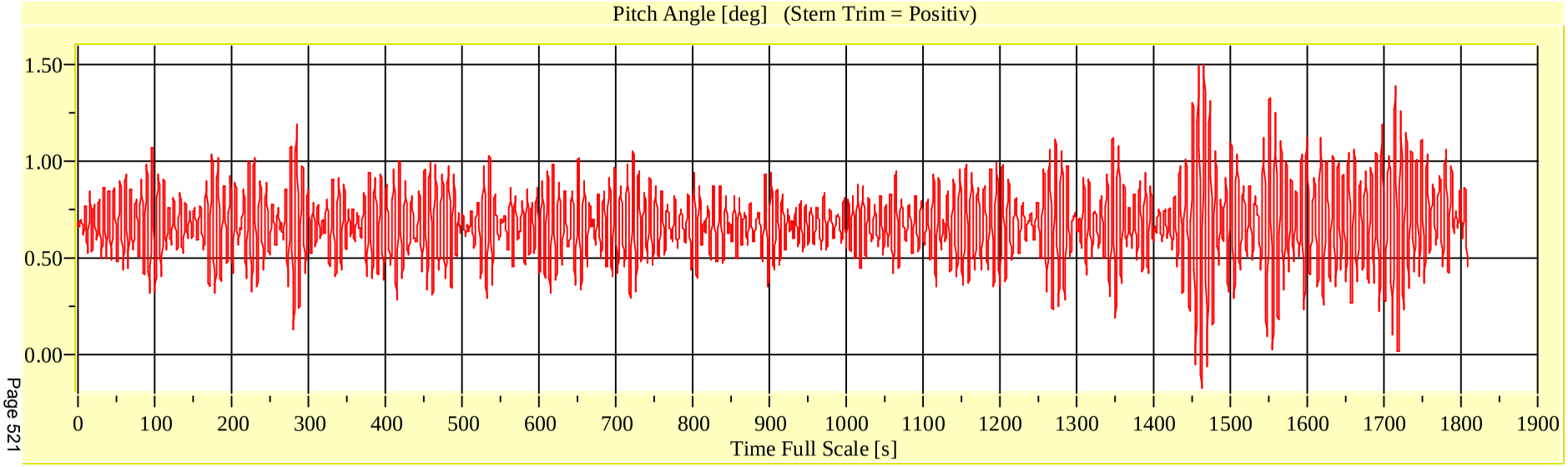


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-03	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

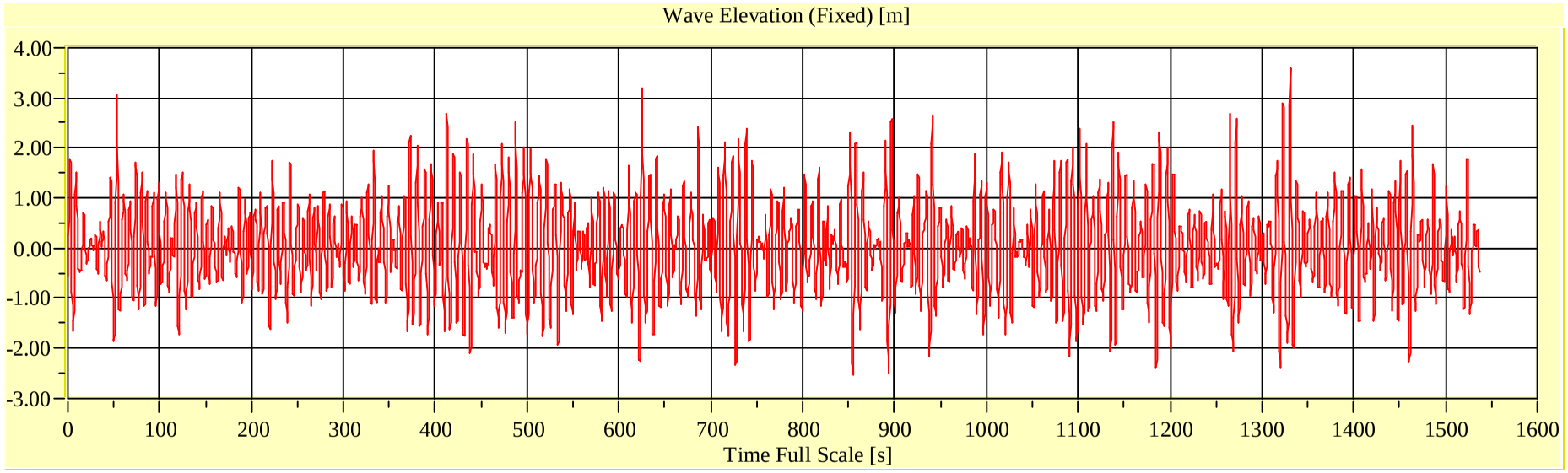


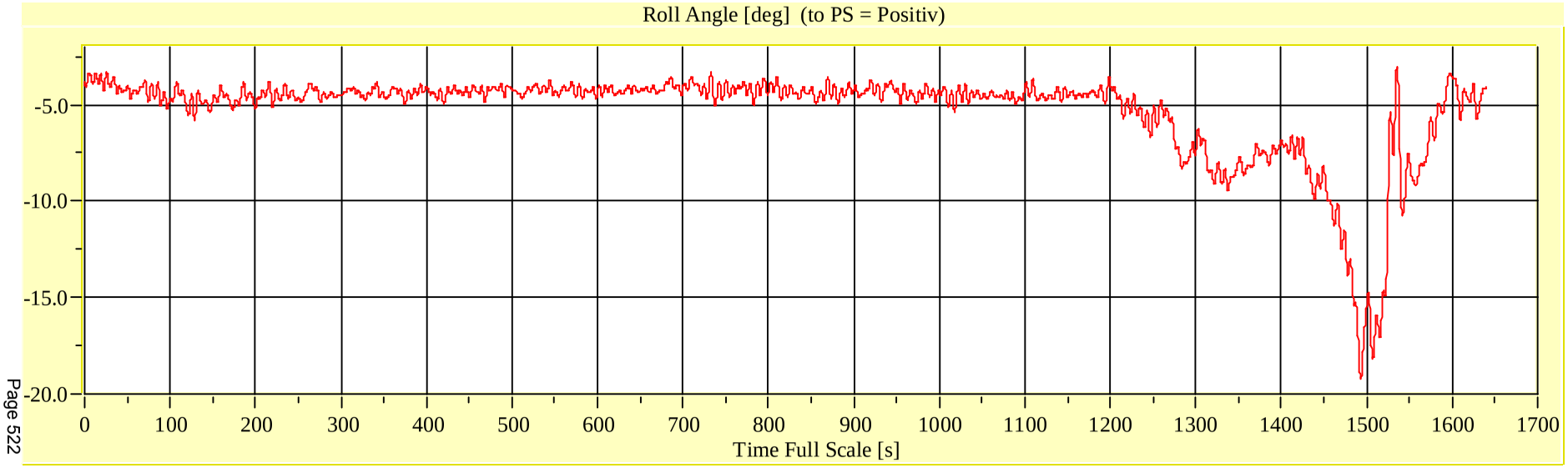


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

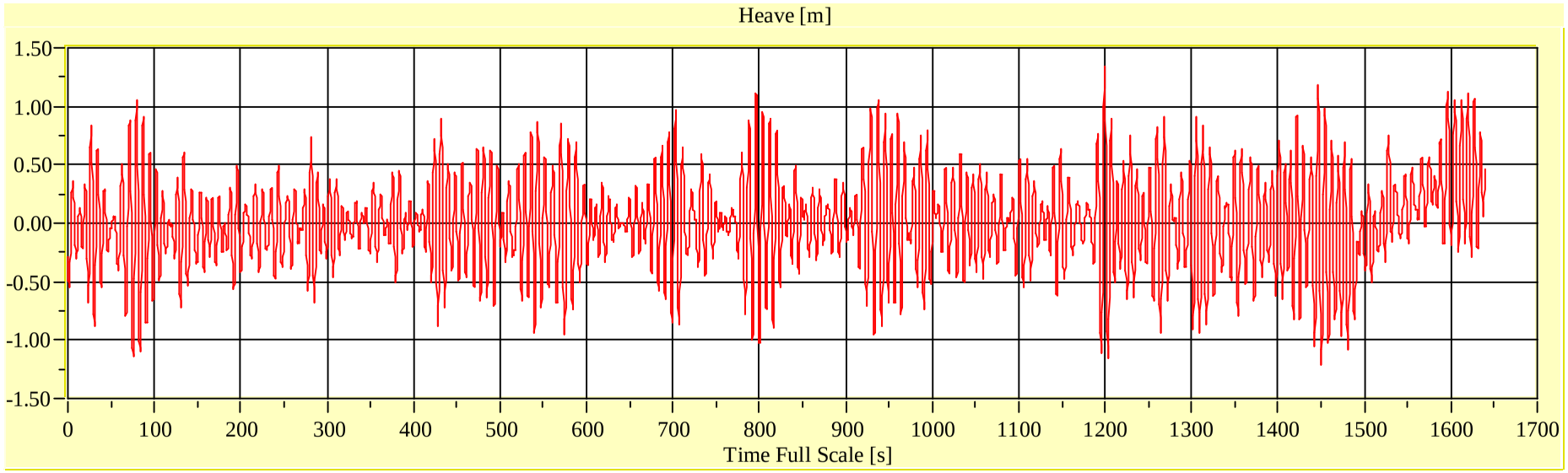


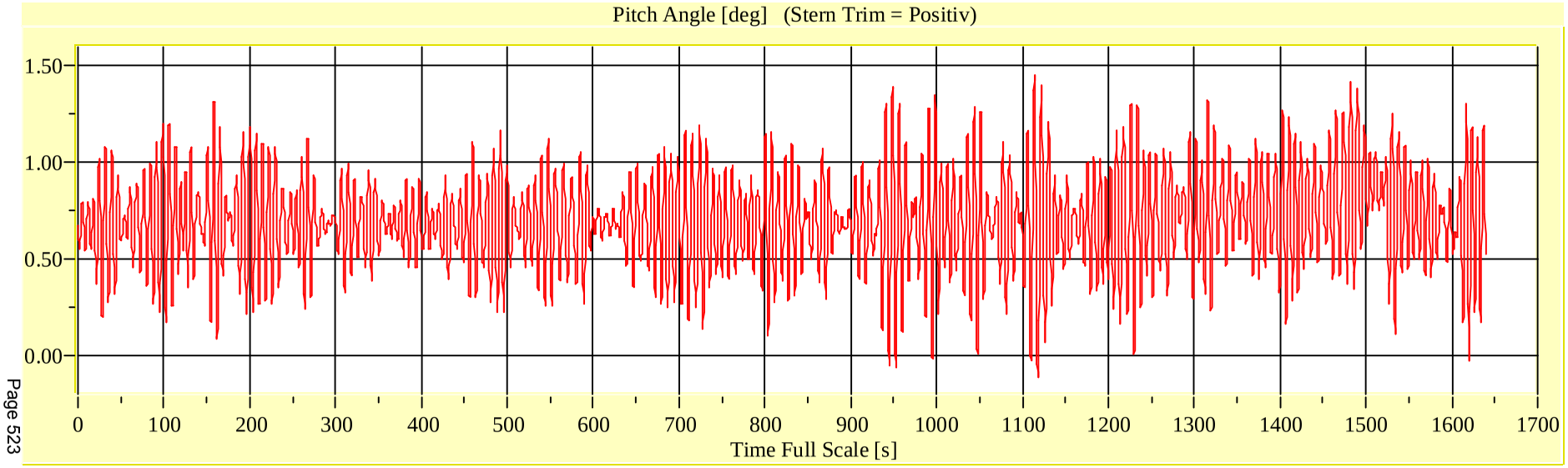


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-04	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

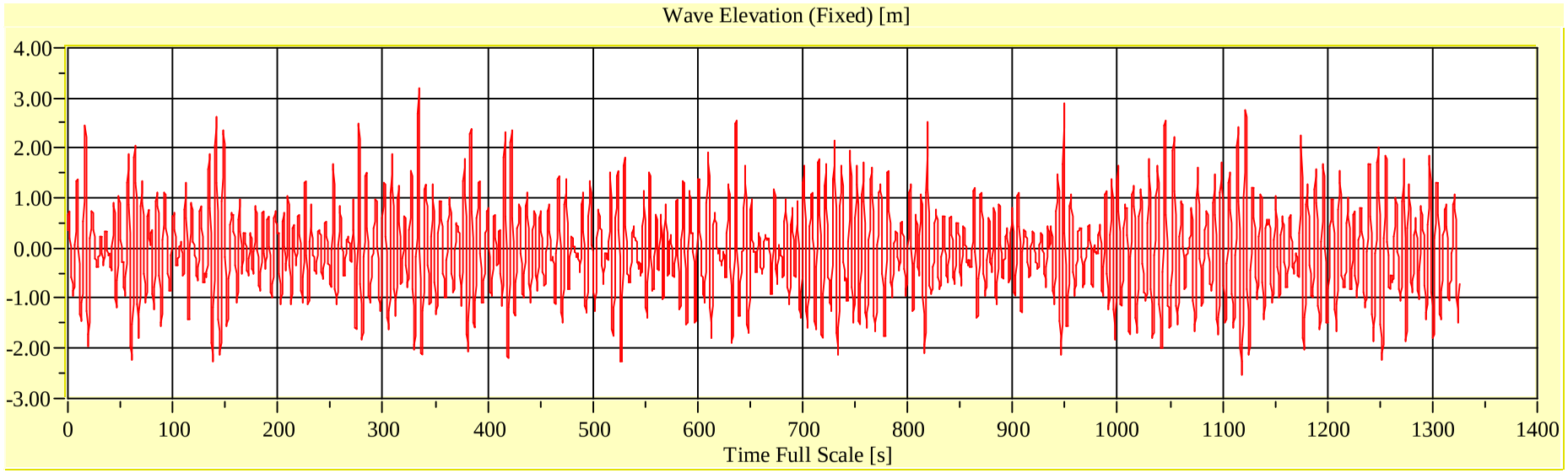


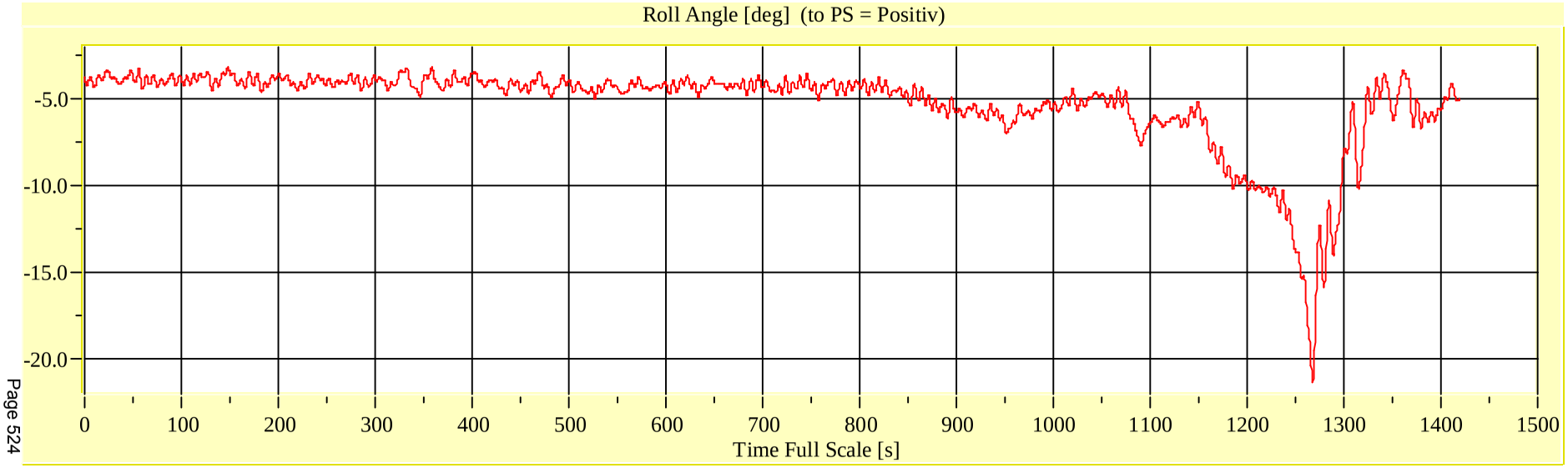


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3



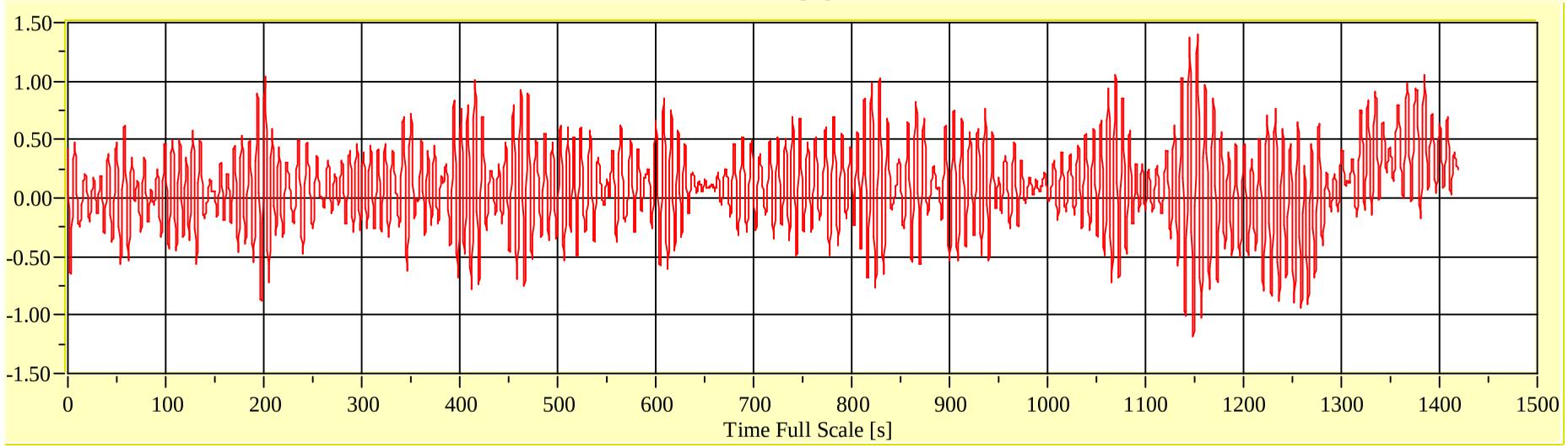


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

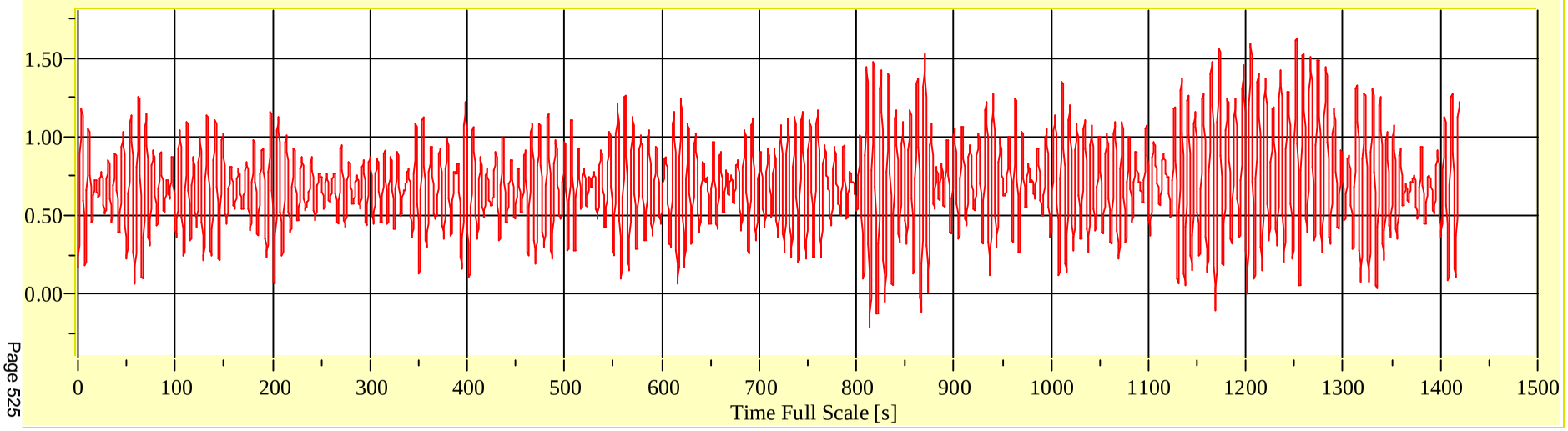
Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-05	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

Heave [m]



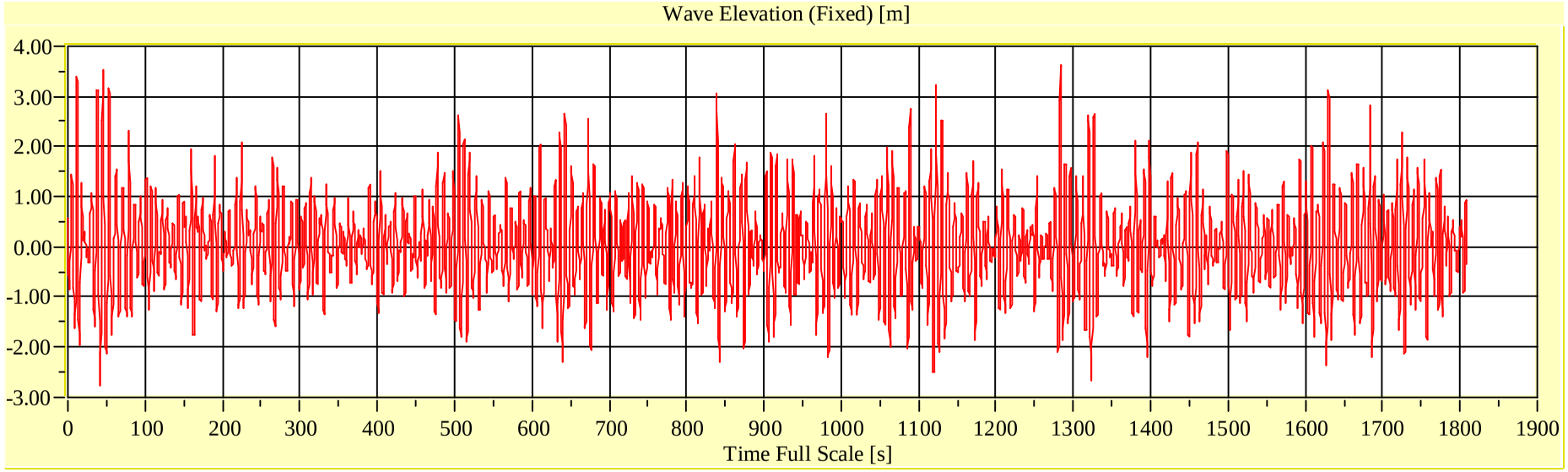
Pitch Angle [deg] (Stern Trim = Positiv)

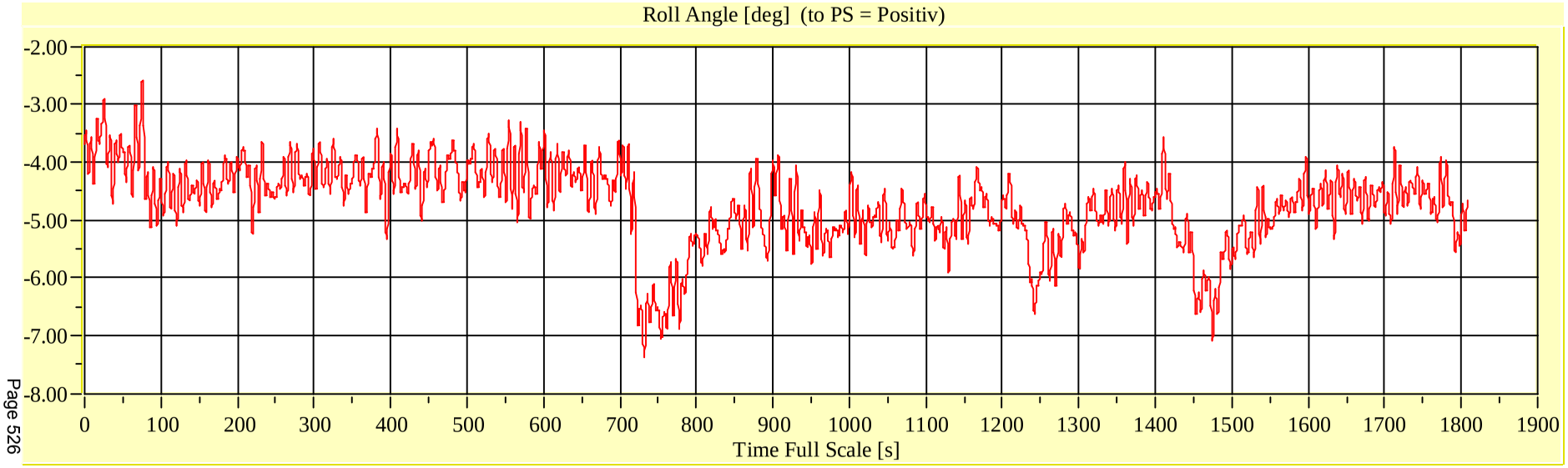


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

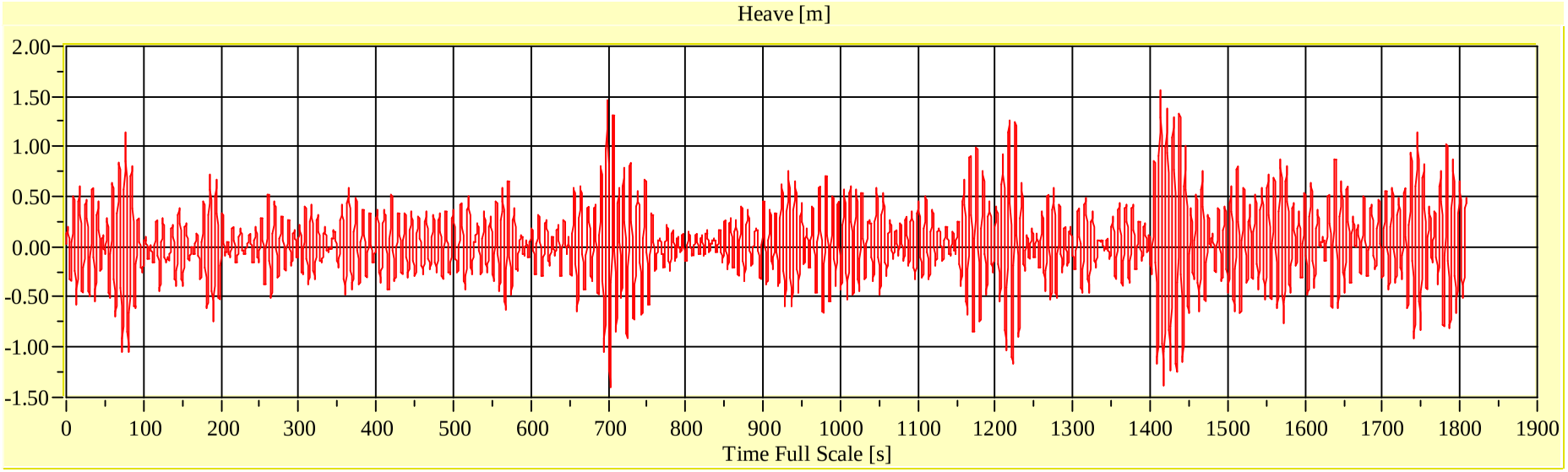


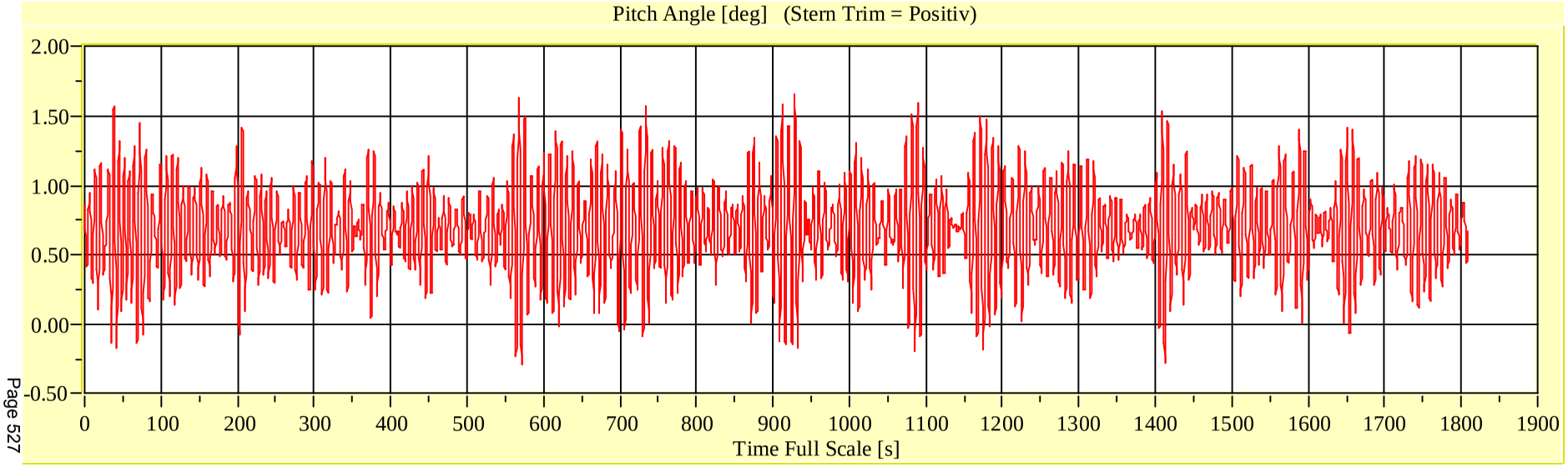


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-06	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

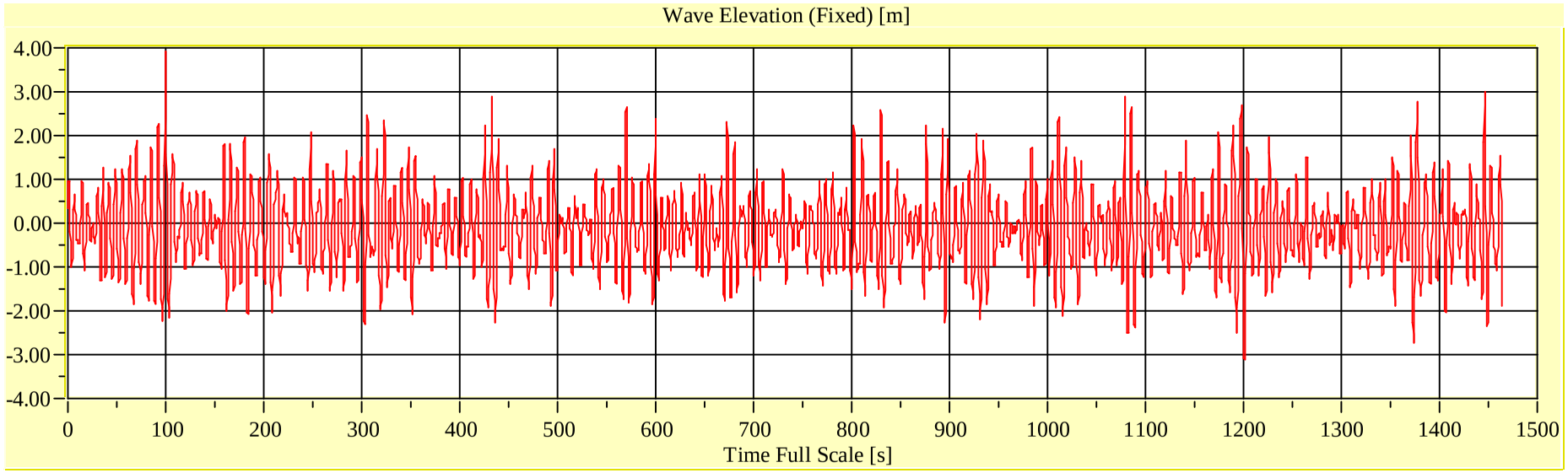


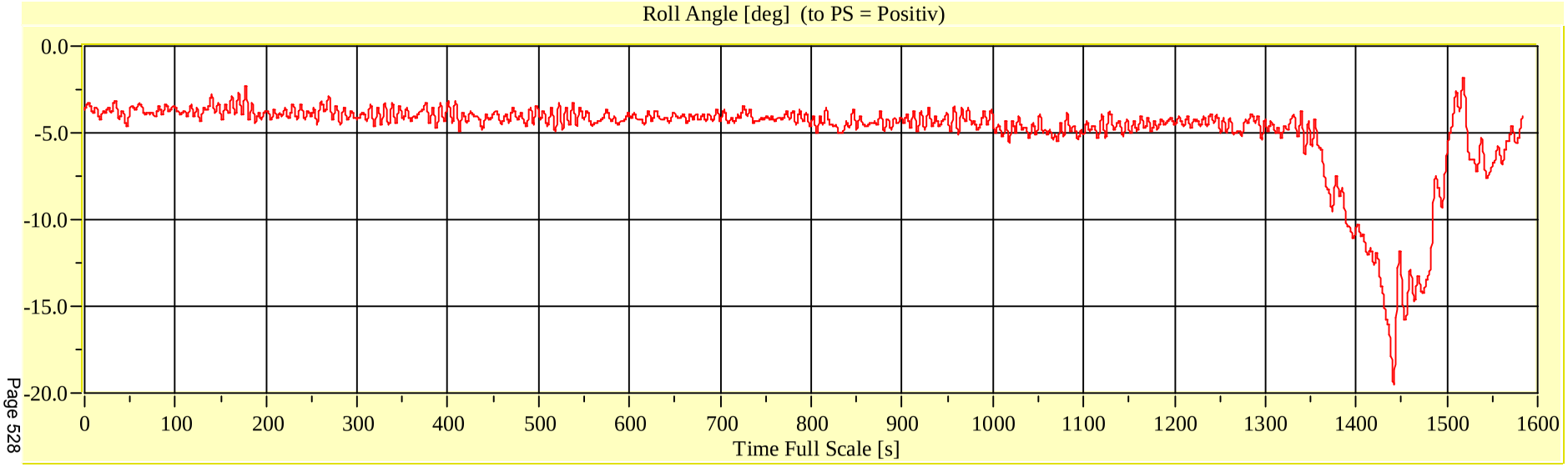


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

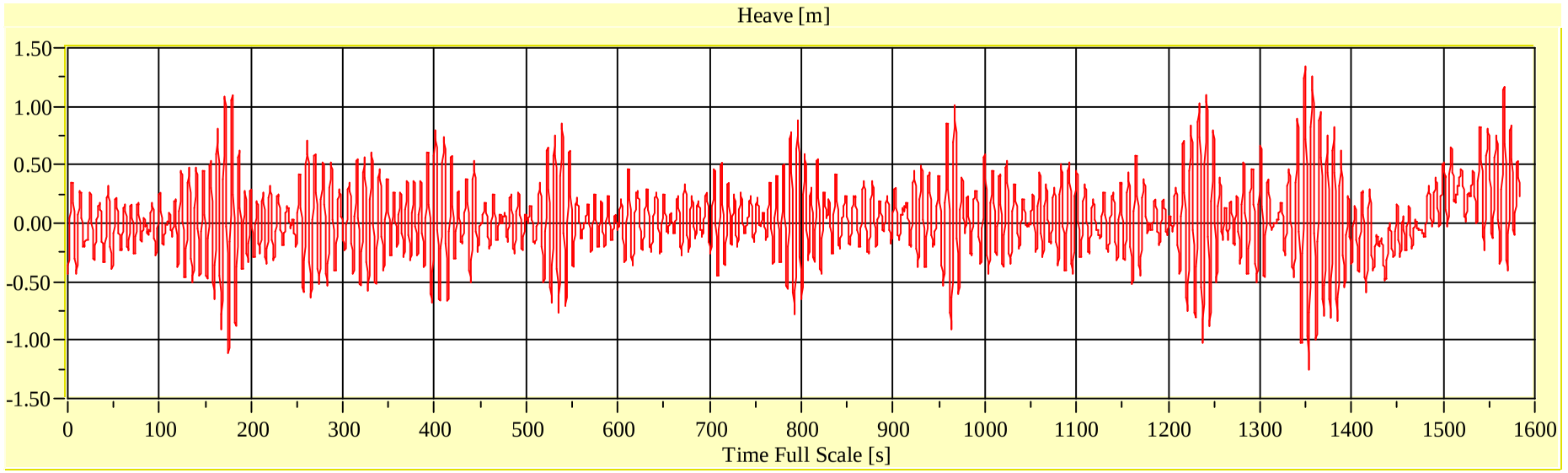


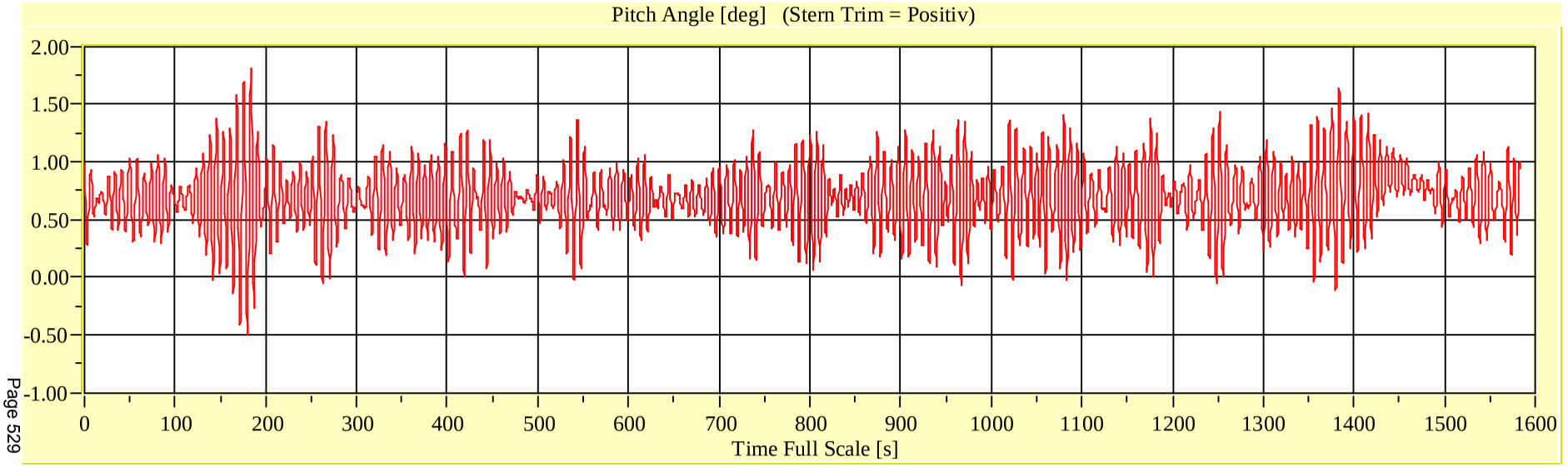


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-07	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

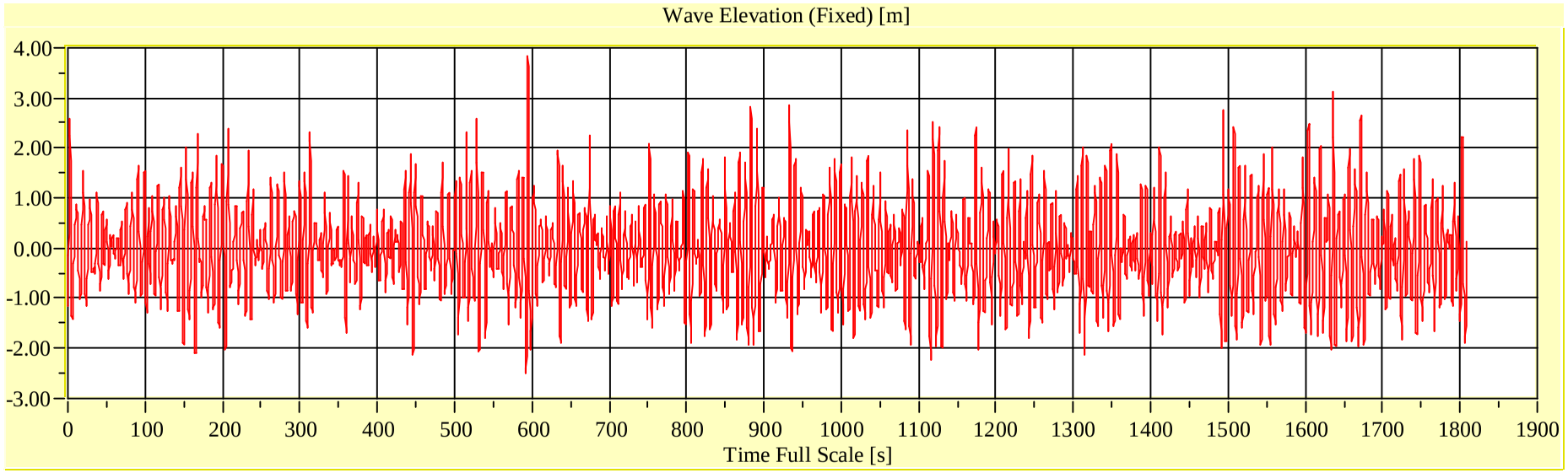


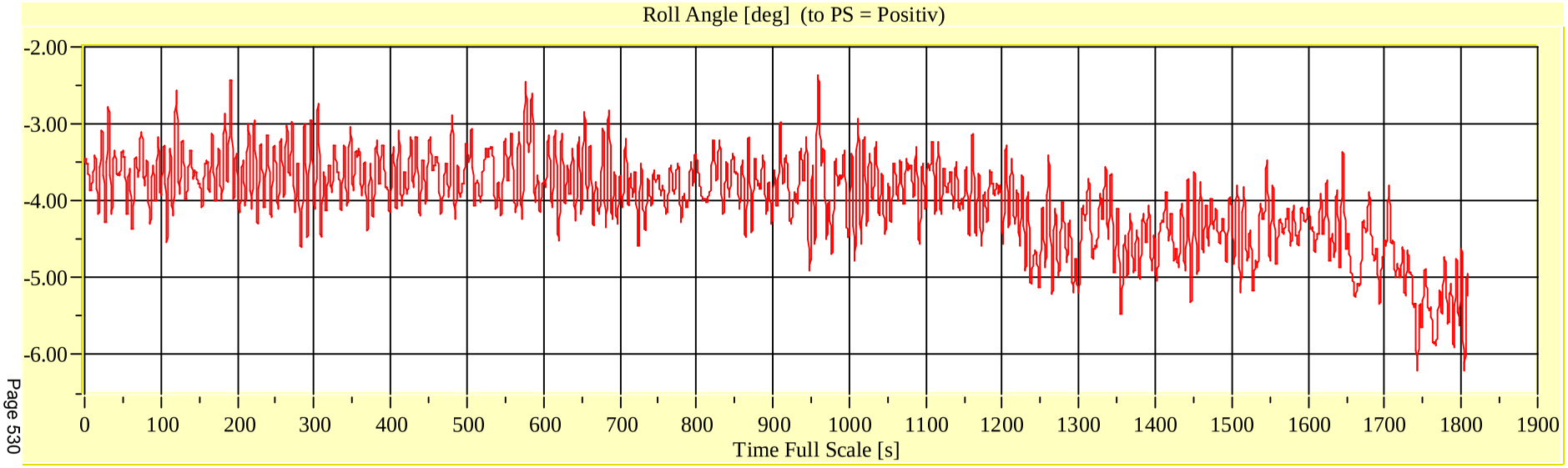


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

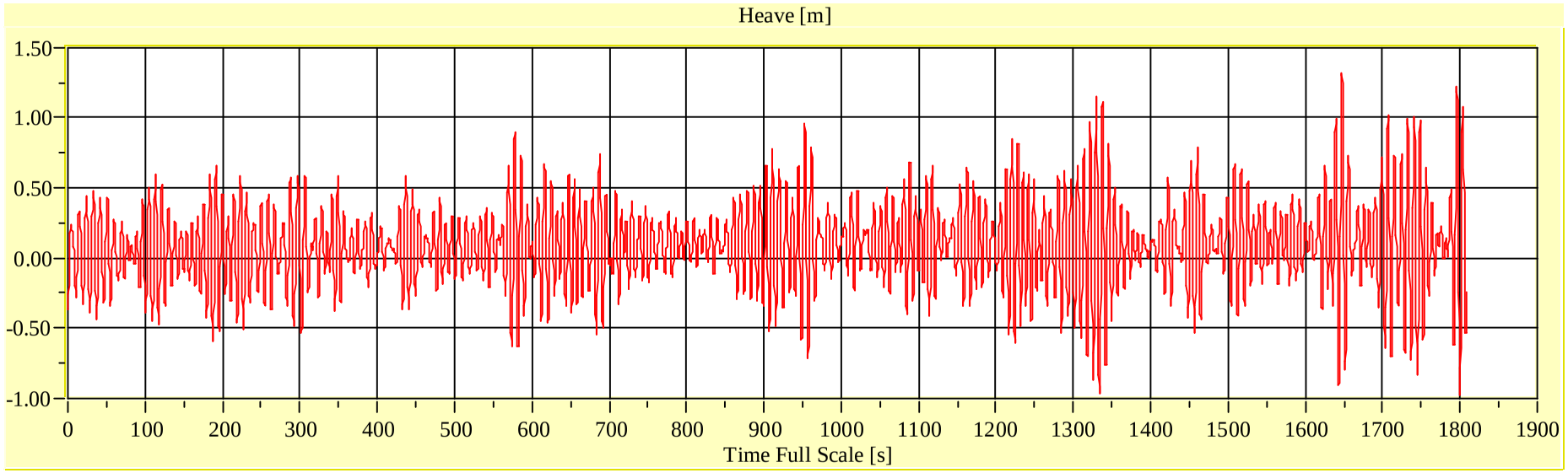


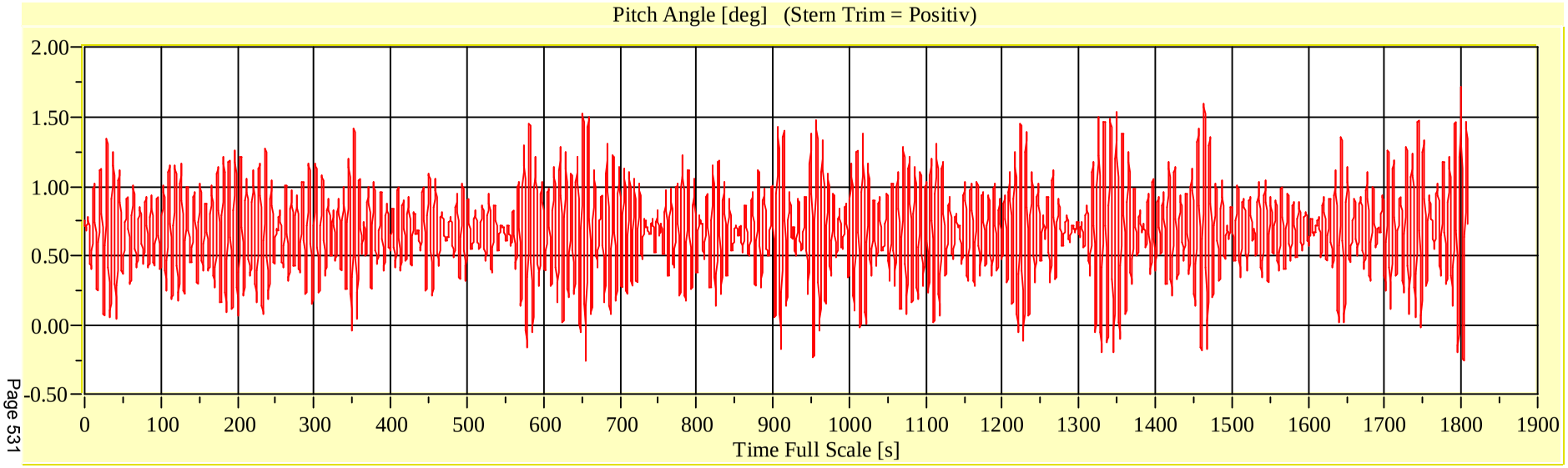


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-08	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

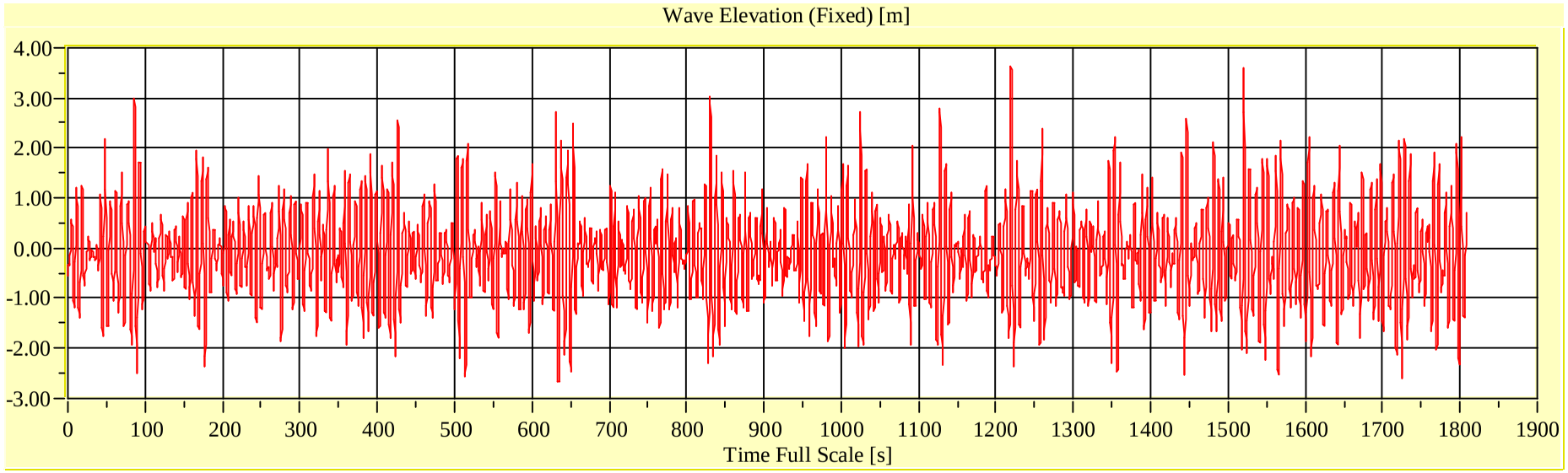


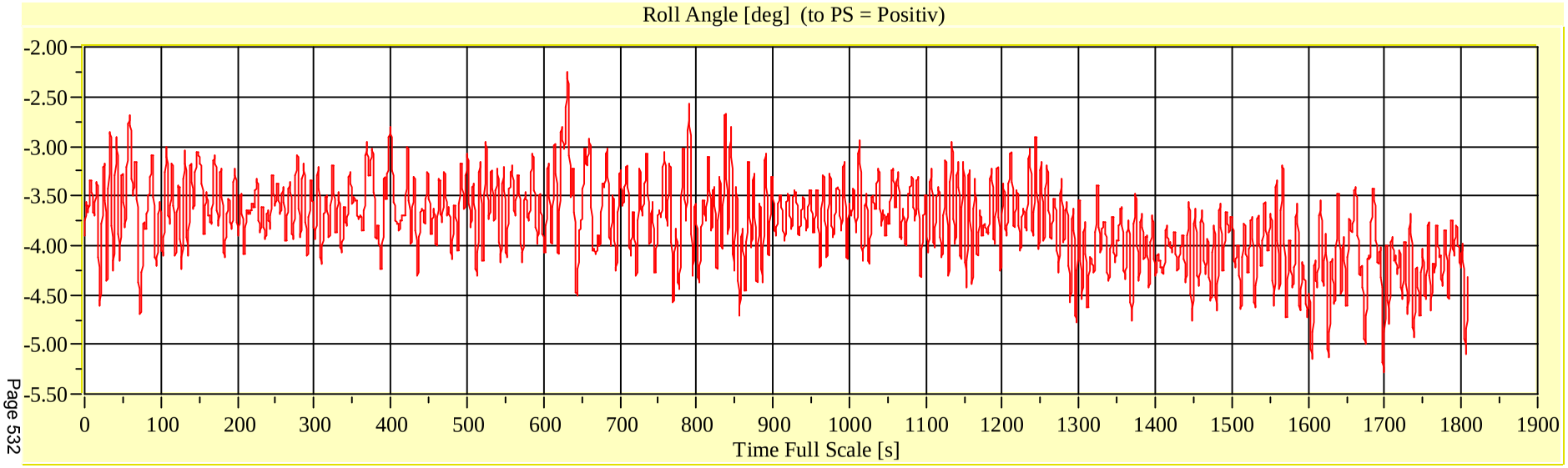


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

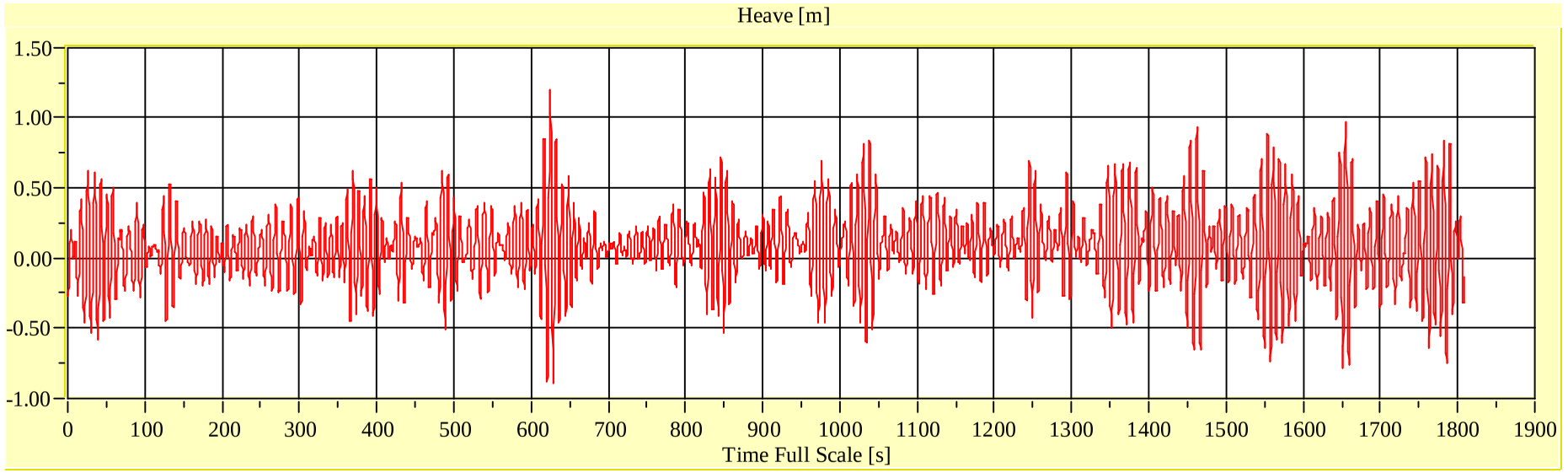


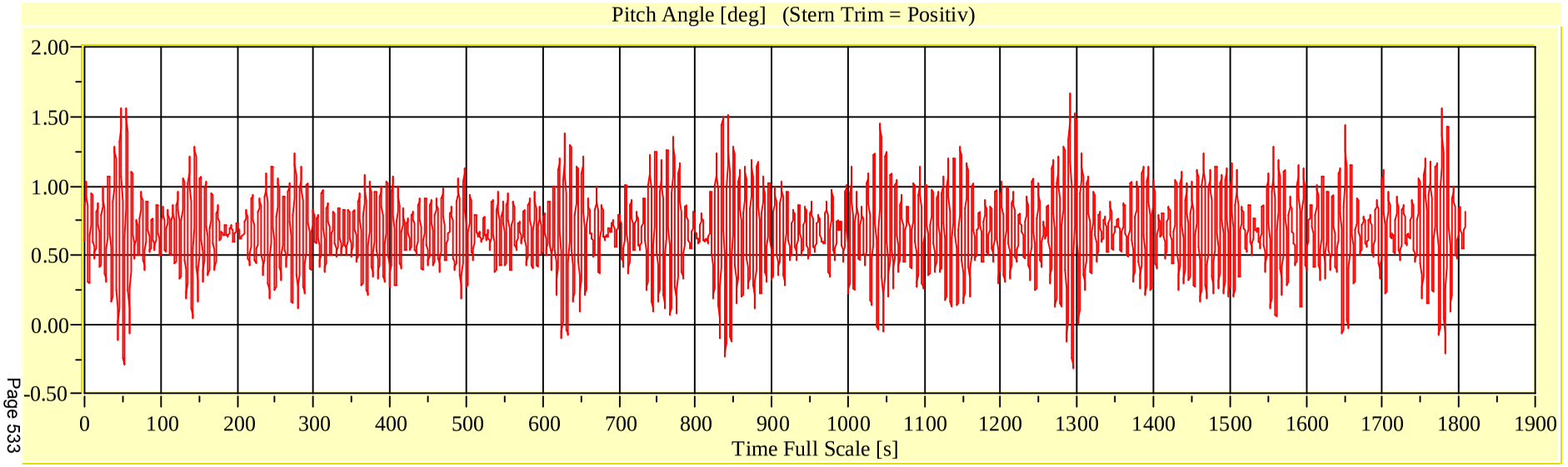


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-09	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

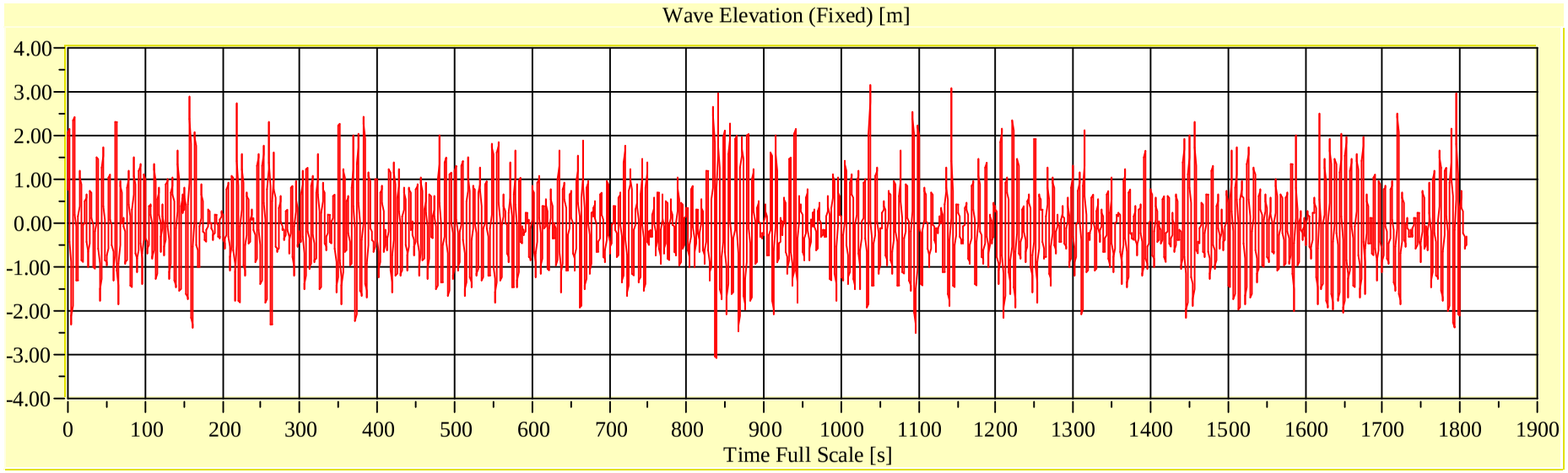


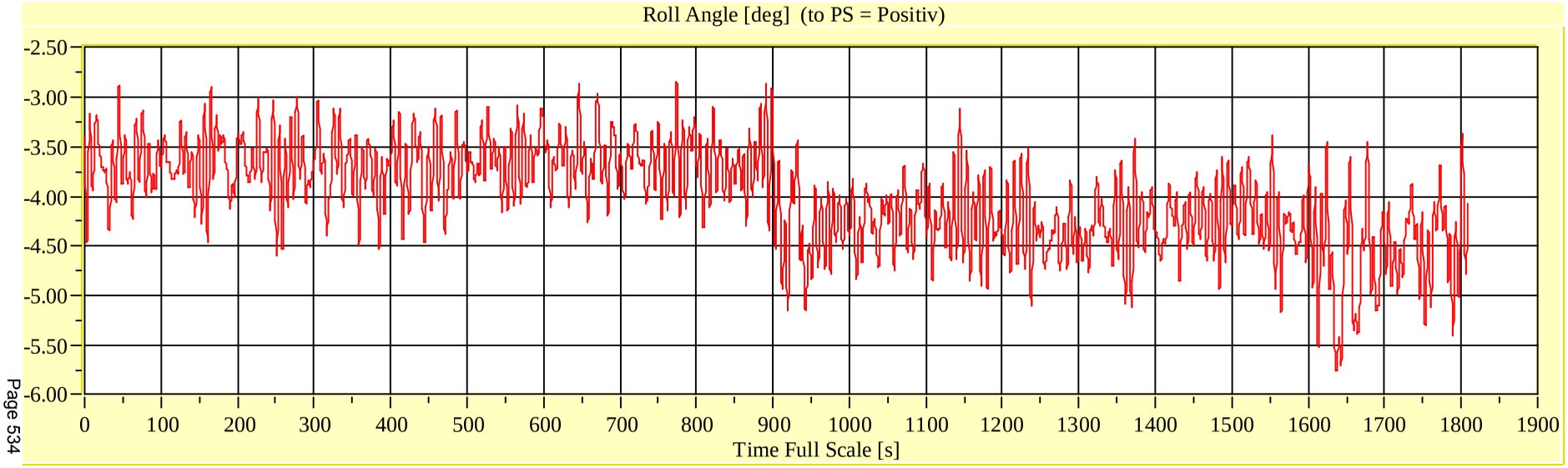


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3

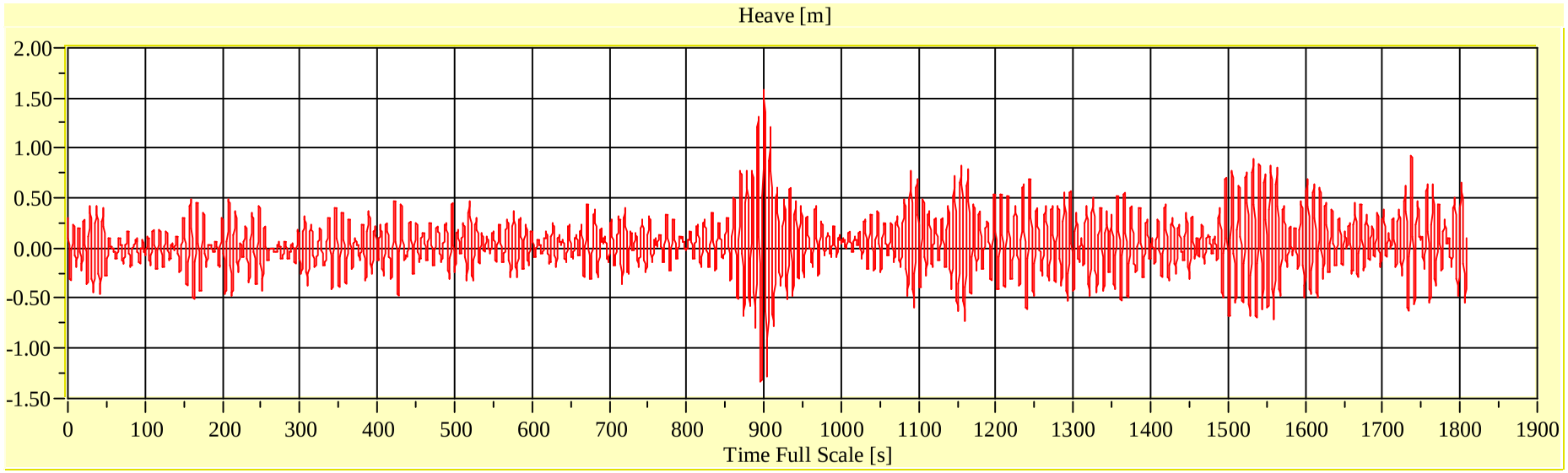


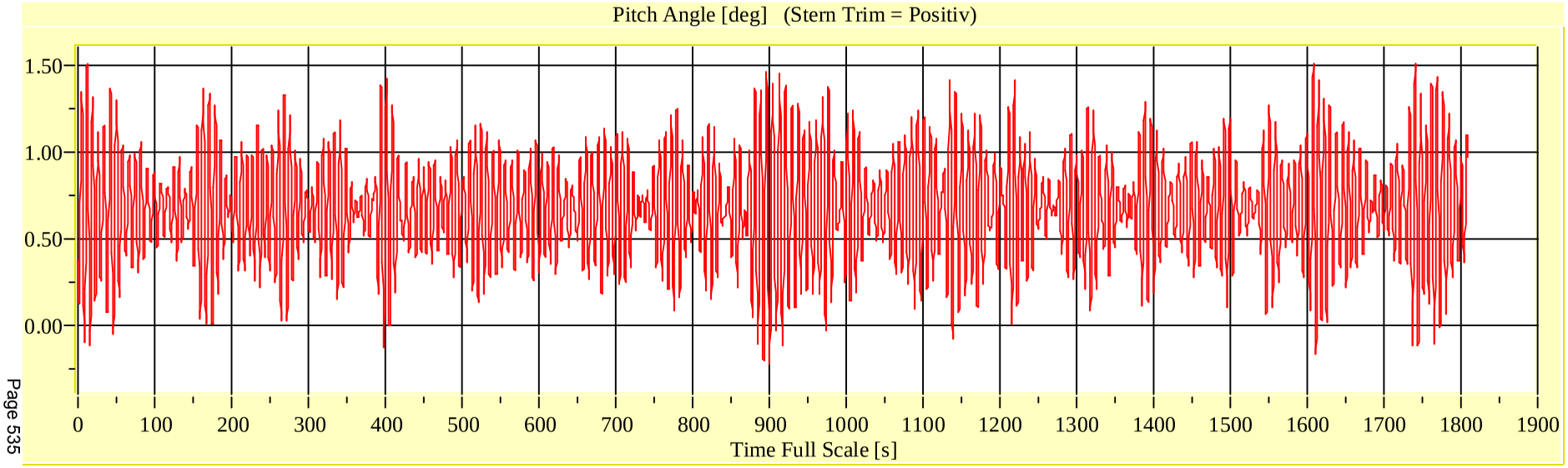


Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

Irregular Beam Seas

Vienna Model Basin	Model No. 2458	Test No. 29722-10	Target Waves: Hs = 3,5 m Tp = 7,483 s	gamma = 3,3





Date: 18.06.2010	Project: EMSA 2	Damage 2: R7P15-16.2.0-1

STOCKHOLM AGREEMENT
WATER ON DECK MODEL EXPERIMENTS
FOR PASSENGER/RO-RO VESSEL

"EMSA 4"

Model No.	:	2461,A
Project No.	:	
Reference No.	:	
Report Date	:	28/04/2011
Report No.	:	2461/01

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DI Dr. Clemens Strasser

Title:	***Stockholm Agreement Water On Deck Model Experiments for the Passenger/Ro-Ro Vessel "EMSA 4"***

Summary:

This report details the model experiments carried out on behalf of "Safety At Sea Ltd." at Vienna Model Basin. The purpose of the model experiments was to investigate the damage survivability of the passenger/Ro-Ro vessel "EMSA 4". The model experiments were performed in accordance with the Model Test Method prescribed in the consolidated edition of EC DIRECTIVE 2003/25/EC which includes the amendments detailed in Directive 2005.12.EC.

The report includes general particulars of the vessel, details of the damage case selection and a description of the experimental procedure. Finally, the results of the experiments are presented.

Measurements were carried out without the model at three different locations within the drift range to ensure the correct wave realisation is used.

The model experiments were carried out in waves characterised by significant wave heights between 1.50 m and 4.00 m. "EMSA 4" survived damage case 2 but did not survive damage case 1.

Client:	*Safety at Sea Ltd.*	***Report No.:***	*2461/01*
Author(s):	*Erhard Uhl* _____ _____	***Checked by:*** ***Approved by***	*Clemens Strasser* _____ *Clemens Strasser* _____

Keywords: **Damage Stability, Model Tests, Survivability, Stockholm Agreement**

CONTENTS

GENERAL PARTICULARS

The passenger/Ro-Ro vessel “EMSA 4” is operating in an area, where the significant wave height (H_S) is between 1.50 m and 4.00 m. The general particulars of the vessel, both full scale and model scale, are shown in Table 1 (Damage Case 1, R7_P8-9.3.0) and Table 1a (Damage Case 2, R7M4_P7-8.3.0). The model was constructed in the scale of 1:40.

Dimension	Full Scale	Model Scale
L_{MOD}	199.016 m	4975.0 mm
L_{BP}	190.000 m	4750.0 mm
B	29.400 m	735.0 mm
T_F / T_M / T_Q/ T_A	6.400/6.400/6.400/6.400 m	160.0/160.0/160.0/160.0 mm
D, Depth to Main Deck	10.0 m	250.0 mm
Displacement in fresh water	23649.30 tonnes	369.5 kg

Table 1: General Particulars of the intact vessel (Damage Case 1, R7_P8-9.3.0)

Dimension	Full Scale	Model Scale
L_{MOD}	199.016 m	4975.0 mm
L_{BP}	190.000 m	4750.0 mm
B	29.400 m	735.0 mm
T_F / T_M / T_A	6.400/6.400/6.400/6.400 m	160.0/160.0/160.0/160.0 mm
D, Depth to Main Deck	10.0 m	250.0 mm
Displacement in fresh water	23649.30 tonnes	369.5 kg

Table 1a: General Particulars of the intact vessel (Damage Case 2, R7M4_P7-8.3.0)

DAMAGE CASE SELECTION

The damage conditions to be model tested have been selected according to EC DIRECTIVE 2003/25/EC (including amendments) and are defined as follows:

- The worst SOLAS damage is selected from those damages where the centerline of the damage opening lies within the range ± 35% L_{BP} from midships and is taken to be that which gives the least total area under the residual stability curve (Appendix to Annex I Paragraph 3.1).
- If the worst SOLAS damage location is outside the range ±10%L_{BP} from midship, a second MIDSHIP damage condition is to be selected within ±10%L_{BP} range and is taken to be that which gives the least total area under the residual stability curve. (Appendix to Annex I Paragraph 3.1).

Worst (SOLAS) Damage Case

The worst SOLAS damage was selected over the trim range of the vessel from 0.00 m stern trim to 0.00 m bow trim. The overall worst damage case and associated initial condition is shown below.

Damage:	R7_P8-9.3.0
Draught:	6.40 m
Trim:	0.0 m trim by Stern
KG:	14.171 m
GM:	2.95 m

Damage:	R7M4_P7-8.3.0
Draught:	6.40 m
Trim:	0.0 m trim by Stern
KG:	13.371 m
GM:	3.75 m

The damage opening for both damage cases is centered on frame 117.

Model Test Damage Case Hydrostatics

Model test damage case hydrostatics can be found in Appendix A.

It should be noted that these hydrostatics are calculated for the hull without appendages, in line with the hull to be used in the model test, floating in water with a density of 1.025 t/m^3. Furthermore, the displacements shown in Appendix C, differ to those shown in Appendix A as they have been calculated with a fluid density of 1.000 t/m^3 as is the case during the model experiments.

CONSTRUCTION OF THE MODEL

The model was constructed by plywood, Plexiglas and foam. The shell of the hull is made of 5 mm which plywood, covered with fiberglass. The skeg was modeled, but other appendages such as rudders, thrusters, fin stabilizers are not modeled.

Transverse watertight bulkheads below the car deck were constructed using plywood covered with fiberglass. The intact tanks below the car deck were constructed using foam. The car deck was constructed using 3 mm clear Plexiglas to aid observation, especially with regards leakage.

Two vertical bars were fixed aft and forward of the model with a horizontal bar attached in between these two. The horizontal bar supports the ballast weights and can be adjusted vertically in order to alter the vertical centre of gravity of the model.

Wooden bars are attached along the top edges of the model, both longitudinally and transversally, in order to improve the stiffness of the model.

Model test information and damage drawings for the model are given in Appendix A and photographs of the model are given in Appendix B.

LOADING CONDITION AND BALLASTING

Safety At Sea Ltd provided the loading conditions for the damage cases; WORST SOLAS DAMAGES (Damage Case 1 R7_P8-9.3.0) and (Damage Case 2 R7M4_P7-8.3.0).

Both the full scale and model scale values are summarized in Table 3 and Table 3a along with the values that were measured at the time of the experiments.

Item	Full Scale	Model Scale	
		Calculated	Measured
Displacement/ Weight	23649.4 t	369.5 kg (Fresh water)	370.0 kg (Fresh water)
Draught AP, Port	6.400 m	160.0 mm	--- mm
Draught AP, Starboard	6.400 m	160.0 mm	--- mm
Draught 0.25LBP, Port	6.400 m	160.0 mm	160.0 mm
Draught 0.25LBP, Starboard	6.400 m	160.0 mm	160.0 mm
Draught Amidship, Port	6.400 m	160.0 mm	160.0 mm
Draught Amidship, Starboard	6.400 m	160.0 mm	160.0 mm
Draught FP	6.400 m	160.0 mm	160.0 mm
Trim by Stern	0.0 m	0.0 mm	0.0 mm

Table 3: Intact Vessel Particulars, worst SOLAS damage R7_P8-9.3.0

Item	Full Scale	Model Scale	
		Calculated	Measured
Displacement/ Weight	23649.3 t	369.5 kg (Fresh water)	370.0 kg (Fresh water)
Draught AP, Port	6.400 m	160.0 mm	--- mm
Draught AP, Starboard	6.400 m	160.0 mm	--- mm
Draught 0.25LBP, Port	6.400 m	160.0 mm	160.0 mm
Draught 0.25LBP, Starboard	6.400 m	160.0 mm	160.0 mm
Draught Amidship, Port	6.400 m	160.0 mm	160.0 mm
Draught Amidship, Starboard	6.400 m	160.0 mm	160.0 mm
Draught FP	6.400 m	160.0 mm	160.0 mm
Trim by Bow	0.0 m	0.0 mm	0.0 mm

Table 3a: Intact Vessel Particulars, SOLAS damage R7M4_P7-8.3.0

INCLINING EXPERIMENT

PROCEDURE

The inclining test was performed following standard practice. One weight belonging to the ballast weight was transferred to a known distance first to the port side and then to the starboard side, measuring each time the ensuing angle of inclination using an inclinometer. The average inclination was used to find the GM using the following equations:

$$\Phi_{AV} = \frac{\Phi_P + \Phi_{ST}}{2}$$

$$GM = \frac{wd}{\Delta \cdot \tan\left(\Phi_{AV}\right)}$$

$$KG = KM - GM$$

Where:

	w	one weight (kg)
	d	horizontal distance between weights (m or mm)
	Φ_{AV}	average angle of inclination (deg)
	Δ	model weight (incl. w)

A test was conducted for each damage case using the intact loading condition as described previously and the results are shown in Table 4, Table 4a and Table 4b.

WORST SOLAS DAMAGE (DAMAGE CASE 1 R7_P8-9.3.0)

Item	Full Scale	Model Scale (1:40)
Weight Δ	23649.4 tonnes	369.5 kg
KMT	17.121	438.3 mm
d	10.0 m	250.0 mm
w	318400 kg	4.975 kg
Target GMT	**2.95 m**	**73.75 mm**
Measured angle of inclination Φ	2.61 deg	2.61 deg
Measured GMT	**2.9497 m**	**73.74 mm**

Table 4: Inclining test results for the intact model

WORST SOLAS DAMAGE (DAMAGE CASE 2 R7M4_P7-8.3.0)

Item	Full Scale	Model Scale (1:40)
Weight Δ	23649.3 tonnes	369.5 kg
KMT	17.121	438.3 mm
d	10.0 m	250.0 mm
w	318400 kg	4.975 kg
Target GMT	**3.75 m**	**93.75 mm**
Measured angle of inclination Φ	2.054 deg	2.054 deg
Measured GMT	**3.7491 m**	**93.7275 mm**

Table 4a: Inclining test results for the intact model

ROLL RADIUS OF GYRATION

According to the Model Test Method, the roll radius of gyration (K_{XX}) of the intact model should be in the range **0.35B** to **0.40B**, where B refers to the beam of vessel. It is also important to ensure an accurate modelling of the vessel´s dynamic characteristics so that an essential departure from 0.4B must be avoided. Free rolling tests in air were carried out in order to estimate the natural roll period (T_n). The roll radius of gyration can then be determined using the following expression:

$$K_{XX} = \sqrt{\frac{gh}{(2\pi/Tn)^2} - h^2}$$

Where: h = distance between centre of rotation and centre of gravity (m)
T_n = natural roll period in air of model system (sec)

A summary of the intact free rolling tests is given in the tables 5 and 5a, while the time histories of the tests are given in Appendix E and E1.

Worst Solas Damage (DAMAGE CASE 1 R7_P8-9.3.0)

Item	Full Scale	Model Scale (1:40)
h	3.72 m	93 mm
Measured natural roll period	11.5107 sec	1.82 sec
Roll radius of gyration (K_{XX})	10.42 m	206.5 mm
B	29.4 m	735.0 mm
K_{XX} /B	**0.3545**	**0.3545**

Table 5: Free Roll Test in Air

Worst Solas Damage (DAMAGE CASE 2 R7M4_P7-8.3.0)

Item	Full Scale	Model Scale (1:40)
h	4.548 m	113.7 mm
Measured natural roll period	11.2198 sec	1.774 sec
Roll radius of gyration (K_{XX})	11.02 m	275.6 mm
B	29.4 m	735.0 mm
K_{XX} /B	**0.3750**	**0.3750**

Table 5a: Free Roll Test in Air

PITCH RADIUS OF GYRATION

According to the Model Test Method, the pitch radius of gyration of the model (K_{YY}) should be in the range $0.2L_{OA}$ to $0.25L_{OA}$. In order to determine the pitch radius of gyration the model was suspended from the horizontal ballast bar, which is above the vertical centre of gravity (KG). The longitudinal position of the suspension point is located so that an even keel of the model in the air is achieved. The model was pushed down and then let free to pitch around the rotation point. The total time for a certain number of pitching periods is measured and the natural pitch period of the model in the air is determined by taking the average pitching period. The pitch mass moment of inertia is determined by using the following equations:

$$I_{YY} = M_s K_{YY}^2 + M_s h^2$$

$$I_{YY} = \frac{M_s g h T_p^2}{(2\pi)^2}$$

and the pitch radius of gyration is:

$$K_{YY} = \sqrt{\frac{I_{YY}}{M_s} - h^2}$$

Where: h = distance between centre of rotation and centre of gravity (m)
T_P = natural pitch period of model system (sec)
M_s = mass of the model system (kg)
I_{YY} = pitch mass moment of inertia of the model system (kg m^2)
K_{YY} = pitch radius of gyration (m)

The results of the test are summarized in Table 6 and Table 6a.

Item	Model Scale	
M_s	370.00	kg
h	339	mm
T_P	3.9657	sec
I_{YY}	490.01	kg m^2
LOA	4970.0	mm
K_{YY}	**1099.7**	**mm**
K_{YY}/LOA	**0.2213**	

Table 6: Pitch radius of gyration, Damage Case 1 R7_P8-9.3.0

PITCH RADIUS OF GYRATION

Item	Model Scale	
M_S	370.00	kg
h	339	mm
T_P	4.027	sec
I_{YY}	55.27	kg m^2
LOA	4970.0	mm
K_{YY}	**1118.3**	**mm**
K_{YY}/LOA	**0.2250**	

Table 6a: Pitch radius of gyration, Damage Case 2 R7M4_P7-8.3.0

ENVIROMENTAL CONDITIONS

In accordance with the Model Test Method, an irregular wave environment was modeled using JONSWAP spectra as specified below. Waves are assumed to be coming from beam into the damage opening.

SHORT WAVES

For short waves the peakness parameter, γ, is 3.3. The peak period is calculated as:

$$T_P = 4\sqrt{H_S}$$

And the zero crossing period is:

$$T_Z = \frac{T_P}{1.285}$$

Where, T_P: Peak Period (sec) H_S : Significant wave height (m)
T_Z: Zero Crossing Period (sec) γ: Peakness parameter

Wave	γ	H_S (m)	T_P (sec)	T_Z (sec)
Short	3.3	1.50	4.8990	3.8124
Short	3.3	1.75	5.2915	4.1179
Short	3.3	2.00	5.6569	4.4022
Short	3.3	2.25	6.0000	4.6693
Short	3.3	2.50	6.3246	4.9218
Short	3.3	2.75	6.6332	5.1621
Short	3.3	2.90	6.8118	5.3010
Short	3.3	3.00	6.9282	5.3916
Short	3.3	3.50	7.4833	5.8236
Short	3.3	4.00	8.0000	6.2257

Table 7 Summary of wave characteristics (JONSWAP)

EXPERIMENTS

EXPERIMENTAL SET UP

The test section of the sea-keeping tank is 180 m long, 10.0 m wide and 5.0 m deep with a wave maker at one end and a beach at the other. The wave maker has 2 flaps capable of generating regular and irregular waves using in-house software.

Wave realizations are generated in the presence of authorities and for each record the spectral characteristics are automatically checked to ensure adherence to the pre-specified sea states.

For a representative wave realization, measurements were performed prior to the test at three different locations within the drift range.

The model was free to drift and placed in beam seas (90° heading)with the damage hole facing the oncoming waves, with no mooring system permanently attached to the model. To maintain a beam sea heading of approximately 90° during the model test the following requirements were satisfied:

- Heading control lines, intended for minor adjustment, were located at the centre line of the stem and stern, in a symmetrical fashion and at a level between the position of KG and the damaged waterline
- The carriage speed was equal to the actual drift speed of the model with speed adjustment made when necessary

Ten experiments were carried out. The test period for each experiment was of a duration such that a stationary state was reached, but not less than 30 min in full scale. A different wave realization train was used for each experiment.

Roll and pitch motions are also measured using Qualisys motion capture system to readily provide motion records during the experiments.

EXPERIMENTAL PROCEDURE

The model is initially positioned 50 m away from the wave maker. When the set-up is ready, random wave realizations are produced in the computer. These wave signals are then sent to the wave maker.

During the experiments, instantaneous measurements of the wave realizations from the fixed wave probe, as well as roll and pitch motions of the model can be observed on the available monitors. All this information was recorded. (See DVD 2461)

The total test time of each test was around 285 seconds, which corresponds to approximately 30.0 minutes in full scale. After the completion of each test the measured wave and roll statistics are examined to ensure compliance with the Model Test Method.

RESULTS

The worst SOLAS damage (damage case 1 R7_P8-9.3.0) was tested in a random wave environment, characterized by a 1.50 m to 4.00 m significant wave height. For the conditions considered "EMSA 4" did not survive them all. The summary of the results is given in table 7, 7a and 7b. The wave and roll motion statistics are given in Appendix D, while the wave and the roll motion time histories are given in Appendix E.

The SOLAS damage (damage case 2 R7M4_P7-8.3.0) was tested in a random wave environment characterized by a 4.00 m significant wave height. For the conditions considered "EMSA 4" did not survive them all. The summary of the results is given in table 7c. The wave and the motion statistics are given in Appendix D1, while the wave and the motion time histories are given in Appendix E1.

Damage Case 1 R7_P8-9.3.0

Test No*	Wave No	Wave Height HS (m)		Result
		Target	Fixed	
Worst SOLAS Damage (Damage Case 1 R7_P8-9.3.0) Short Waves (γ = 3.3)				
29726-01	29726-01	1.50	1.5087	Survived
29726-02	29726-02	1.50	1.5160	Survived
29726-03	29726-03	1.50	1.5183	Survived
29726-04	29726-04	1.50	1.5189	Capsized
29726-05	29726-05	1.50	1.5249	Capsized
29727-01	29727-01	1.75	1.7853	Survived
29727-02	29727-02	1.75	1.7850	Survived
29727-03	29727-03	1.75	1.7724	Survived
29727-04	29727-04	1.75	1.7637	Survived
29727-05	29727-05	1.75	1.7836	Survived
29728-01	29728-01	2.00	2.0369	Capsized
29728-02	29728-02	2.00	2.0047	Survived
29728-03	29728-03	2.00	2.0211	Survived
29728-04	29728-04	2.00	2.0206	Survived
29728-05	29728-05	2.00	2.0314	Capsized
29732-01	29732-01	2.25	2.2825	Survived
29732-02	29732-02	2.25	2.3047	Survived
29732-03	29732-03	2.25	2.3049	Capsized
29732-04	29732-04	2.25	2.2966	Capsized
29732-05	29732-05	2.25	2.2872	Capsized
29732-06	29732-06	2.25	2.2776	Survived
29732-07	29732-07	2.25	2.2935	Survived
29732-08	29732-08	2.25	2.2907	Survived
29732-09	29732-09	2.25	2.2858	Survived
29732-10	29732-10	2.25	2.2937	Survived

Table 7: Summary of the experimental results
*This number corresponds with the number referenced on the video

RESULTS

Damage Case 1 R7_P8-9.3.0

Test No*	Wave No	Wave Height HS (m)		Result
		Target	Fixed	
Worst SOLAS Damage (Damage Case 1 R7_P8-9.3.0) Short Waves (γ = 3.3)				
29734-01	29734-01	2.50	2.5535	Survived
29734-02	29734-02	2.50	2.5522	Survived
29734-03	29734-03	2.50	2.5381	Survived
29734-04	29734-04	2.50	2.5405	Survived
29734-05	29734-05	2.50	2.5484	Survived
29735-01	29735-01	2.75	2.8579	Survived
29735-02	29735-02	2.75	2.8095	Survived
29735-03	29735-03	2.75	2.8166	Survived
29735-04	29735-04	2.75	2.7858	Survived
29735-05	29735-05	2.75	2.8051	Survived
29735-06	29735-06	2.75	2.7976	Survived
29735-07	29735-07	2.75	2.8076	Survived
29735-08	29735-08	2.75	2.7971	Survived
29735-09	29735-09	2.75	2.7954	Survived
29735-10	29735-10	2.75	2.7893	Survived
29736-01	29736-01	4.00	4.0612	Capsized
29736-02	29736-02	4.00	4.0641	Capsized
29736-03	29736-03	4.00	4.0520	Capsized
29736-04	29736-04	4.00	3.9953	Capsized
29736-05	29736-05	4.00	4.0317	Capsized
29737-01	29737-01	3.50	3.5168	Capsized
29737-02	29737-02	3.50	3.5366	Capsized
29737-03	29737-03	3.50	3.5293	Capsized
29737-04	29737-04	3.50	3.5128	Capsized
29737-05	29737-05	3.50	3.5187	Capsized
29738-01	29738-01	3.00	3.0326	Capsized
29738-02	29738-02	3.00	3.0234	Capsized
29738-03	29738-03	3.00	3.0318	Capsized
29738-04	29738-04	3.00	3.0441	Capsized
29738-05	29738-05	3.00	3.0446	Capsized
29738-06	29738-06	3.00	3.0502	Capsized
29738-07	29738-07	3.00	3.0488	Capsized
29738-08	29738-08	3.00	3.0353	Capsized
29738-09	29738-09	3.00	3.0384	Capsized
29738-10	29738-10	3.00	3.0482	Capsized

Table 7a: Summary of the experimental results
*This number corresponds with the number referenced on the video

RESULTS

Damage Case 1 R7_P8-9.3.0

Test No*	Wave No	Wave Height HS (m)		Result
		Target	Fixed	
Worst SOLAS Damage (Damage Case 1 R7_P8-9.3.0) Short Waves (γ = 3.3)				
29739-01	29739-01	2.90	2.9375	Survived
29739-02	29739-02	2.90	2.9314	Survived
29739-03	29739-03	2.90	2.9374	Capsized
29739-04	29739-04	2.90	2.9366	Survived
29739-05	29739-05	2.90	2.9292	Capsized
29739-06	29739-06	2.90	2.9412	Capsized
29739-07	29739-07	2.90	2.9429	Survived
29739-08	29739-08	2.90	2.9376	Survived
29739-09	29739-09	2.90	2.9575	Survived
29739-10	29739-10	2.90	2.9484	Survived
29739-11	29739-11	2.90	2.9348	Survived
29739-12	29739-12	2.90	2.9441	Capsized
29739-13	29739-13	2.90	2.9339	Capsized
29739-14	29739-14	2.90	2.9438	Capsized
29739-15	29739-15	2.90	2.9514	Survived
29739-16	29739-16	2.90	2.9472	Survived
29739-17	29739-17	2.90	2.9303	Capsized
29739-18	29739-18	2.90	2.9290	Capsized
29739-19	29739-19	2.90	2.9393	Capsized
29739-20	29739-20	2.90	2.9297	Capsized
29739-21	29739-21	2.90	2.9558	Survived
29739-22	29739-22	2.90	2.9472	Capsized
29739-23	29739-23	2.90	2.9505	Survived
29740-01	29738-01	3.00	3.0361	Capsized
29740-02	29738-02	3.00	3.0359	Capsized
29740-03	29738-03	3.00	3.0353	Capsized
29740-04	29738-04	3.00	3.0325	Capsized
29740-05	29738-05	3.00	3.0429	Capsized
29741-01	29735-01	2.75	2.7812	Survived
29741-02	29735-02	2.75	2.7870	Survived
29741-03	29735-03	2.75	2.7856	Survived
29741-04	29735-04	2.75	2.7786	Capsized
29741-05	29735-05	2.75	2.7842	Capsized

Table 7b: Summary of the experimental results
*This number corresponds with the number referenced on the video

RESULTS

Damage Case 2 R7M4_P7-8.3.0

Test No*	Wave No	Wave Height HS (m)		Result
		Target	Fixed	
Worst SOLAS Damage (Damage Case 2 R7M4_P7-8.3.0) Short Waves (γ = 3.3)				
29965-01	29736-01	4.00	4.0800	Survived
29965-02	29736-02	4.00	4.0523	Survived
29965-03	29736-03	4.00	4.0542	Survived
29965-04	29736-04	4.00	4.0557	Survived
29965-05	29736-05	4.00	4.0326	Survived
29965-06	29736-06	4.00	4.0495	Survived
29965-07	29736-07	4.00	4.0490	Survived
29965-08	29736-08	4.00	4.0371	Survived
29965-09	29736-09	4.00	4.0500	Survived
29965-10	29736-10	4.00	4.0523	Survived

Table 7c: Summary of the experimental results

*This number corresponds with the number referenced on the video

CONCLUSIONS

Model experiments were carried out in a sea state characterised by a significant wave heights of between 1.50 m and 4.00 m to investigate the survivability of the passenger /Ro-Ro vessel. The experiments were conducted according to the Model Test Method specified by IMO. Based on the results of these tests, the following conclusions may be drawn:

- For the worst SOLAS damage (damage case R7_P8-9.3.0) the vessel was tested for significant wave heights between 1.50 m and 4.00 m and she did not survive all the tests.

- For the worst SOLAS damage (damage case R7M4_P7-8.3.0) the vessel was tested for a significant wave heights of 4.00 m and she survived all the tests.

APPENDIX A

DAMAGE INFORMATION & DRAWINGS OF THE MODEL

Model No. 2461 and 2461A

Project: “EMSA 4”

Intact Hydrostatics and Stability Information for Single Damage Case

Damage Case : R7_P8-9.3.0
Damage Side : PORT
Initial Condition : DS

Intact Hydrostatics		Intact Stability	
Midship Draught	6.400 m	KMT	17.121 m
Trim	0.000 m (Between Perps)		
Trim Angle	0.000 deg	KG	14.171 m
Heel Angle	0.000 deg	GM	2.950 m
Displacement	24319.9 Tonnes		
Moulded Volume	23649.4 m3 (Actual Floating Position)		
LCB	89.56 m (From AP - Actual Floating Position)		

MAIN CHARACTERISTICS OF THE VESSEL:

Length betw. perpendiculars	190.00	m
Breadth, moulded	29.40	m
Design draught	6.30	m
X-coord. of after perpendicular	0.00	m
X-coord. of reference point	95.00	m
X-coord. of midship section	95.00	m
X-coord. of building frame 0	0.00	m
Thickness of keelplate	0.010	m
Mean thickness of shell plating	0.012	m
Density of water	1.0250	ton/m3

Sign Conventions

Trim by Bow : +
Heel to Port : +

Calculations are based on MODELHULL date 2010-05-28 time 16:47

Shell thickness used in the calculation	12.0	mm
X-coord. of aft end of DWL	-4.50	m
X-coord. of fore end of DWL	193.04	m

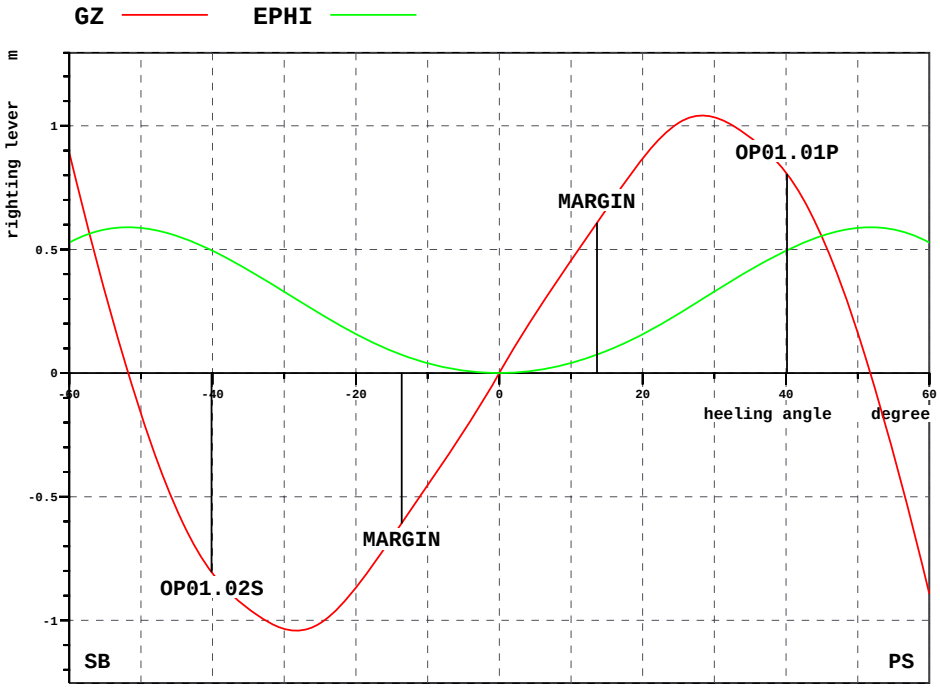
Calc. sections 31

Intact GZ Curve

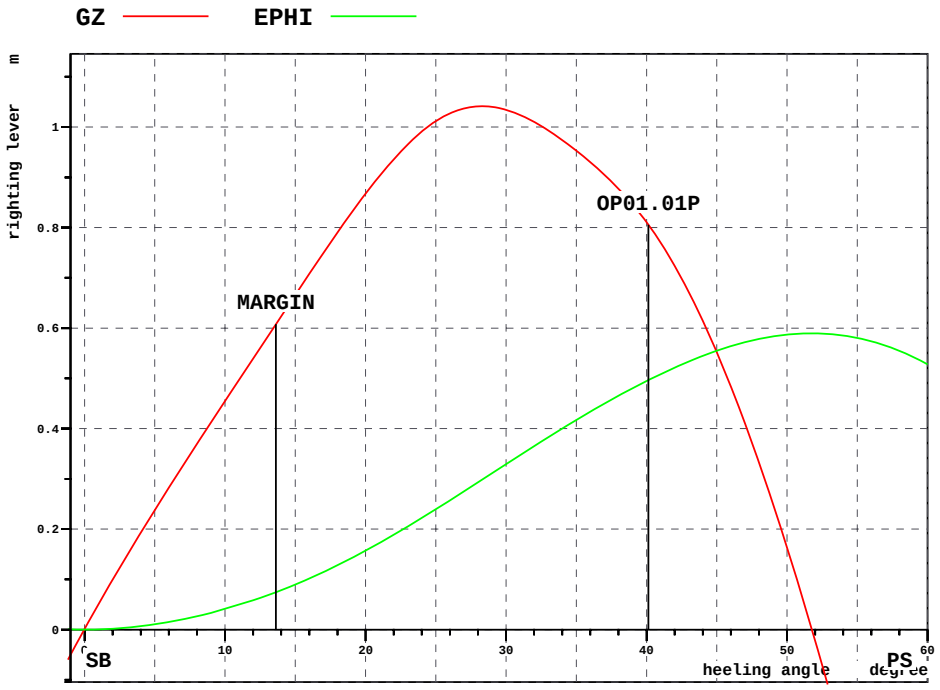
Initial condition : DS, Deepest subdivision draught
Damage case : R7_P8-9.3.0, Zones Z08-Z09 Port, b3
Stage of damage : INTACT
Phase of stage : EQ

HEEL degree	GZ m	EPHI rad*m	T m	TR m	OPNAME	IMRES m	RESMRG m
-60.0	0.892	0.528	-0.001	2.629	OP01.02S	-2.51	-8.35
-50.0	-0.164	0.587	1.716	2.038	OP01.02S	-1.27	-7.05
-45.0	-0.552	0.555	2.564	1.752	OP01.02S	-0.63	-6.32
-40.0	-0.811	0.495	3.398	1.457	OP01.02S	0.02	-5.56
-35.0	-0.953	0.417	4.176	1.242	OP01.02S	0.72	-4.75
-30.0	-1.034	0.330	4.837	1.032	OP01.02S	1.52	-3.82
-27.0	-1.037	0.275	5.169	0.904	OP01.02S	2.04	-3.20
-24.0	-0.991	0.222	5.451	0.780	OP01.02S	2.59	-2.53
-21.0	-0.903	0.172	5.687	0.661	OP01.02S	3.16	-1.83
-18.0	-0.791	0.128	5.880	0.544	OP01.02S	3.76	-1.10
-15.0	-0.666	0.090	6.039	0.432	OP01.02S	4.37	-0.35
-12.0	-0.539	0.058	6.168	0.322	OP01.02S	4.98	0.41
-9.0	-0.412	0.033	6.268	0.217	OP01.02S	5.59	1.19
-7.0	-0.326	0.020	6.319	0.152	OP01.02S	6.00	1.71
-5.0	-0.238	0.011	6.357	0.095	OP01.02S	6.40	2.23
-4.0	-0.193	0.007	6.372	0.068	OP01.02S	6.61	2.49
-3.0	-0.146	0.004	6.384	0.044	OP01.02S	6.81	2.75
-2.0	-0.099	0.002	6.393	0.022	OP01.02S	7.01	3.01
-1.0	-0.051	0.000	6.398	0.005	OP01.02S	7.22	3.27
0.0	0.000	0.000	6.400	0.000	OP01.01P	7.42	3.52
1.0	0.051	0.000	6.398	0.005	OP01.01P	7.22	3.27
2.0	0.099	0.002	6.393	0.022	OP01.01P	7.01	3.01
3.0	0.146	0.004	6.384	0.044	OP01.01P	6.81	2.75
4.0	0.193	0.007	6.372	0.068	OP01.01P	6.61	2.49
5.0	0.238	0.011	6.357	0.095	OP01.01P	6.40	2.23
7.0	0.326	0.020	6.319	0.152	OP01.01P	6.00	1.71
9.0	0.412	0.033	6.268	0.217	OP01.01P	5.59	1.19
12.0	0.539	0.058	6.168	0.322	OP01.01P	4.98	0.41
15.0	0.666	0.090	6.039	0.432	OP01.01P	4.37	-0.35
18.0	0.791	0.128	5.880	0.544	OP01.01P	3.76	-1.10
21.0	0.903	0.172	5.687	0.661	OP01.01P	3.16	-1.83
24.0	0.991	0.222	5.451	0.780	OP01.01P	2.59	-2.53
27.0	1.037	0.275	5.169	0.904	OP01.01P	2.04	-3.20
30.0	1.034	0.330	4.837	1.032	OP01.01P	1.52	-3.82
35.0	0.953	0.417	4.176	1.242	OP01.01P	0.72	-4.75
40.0	0.811	0.495	3.398	1.457	OP01.01P	0.02	-5.56
45.0	0.552	0.555	2.564	1.752	OP01.01P	-0.63	-6.32
50.0	0.164	0.587	1.716	2.038	OP01.01P	-1.27	-7.05
60.0	-0.892	0.528	-0.001	2.629	OP01.01P	-2.51	-8.35

Intact GZ Plot (Whole Range)



Intact GZ Plot (Heeling To Port)



Damage Hydrostatics and Stability Information for Single Damage Case

Damage Case : R7_P8-9.3.0
Damage Side : PORT
Initial Condition : DS
Flooding Stage : *LAST
Phase of Stage : EQ

Damaged Compartments

Room	Permeability	Volume	XCG	YCG	ZCG	Moulded Volume
R03.06	0.90	6696.2	94.94	0.86	6.10	7440.2
R04.06	0.90	30.3	136.73	12.29	10.18	33.7
R08.01P	0.85	182.8	79.56	11.84	4.89	215.0
R08.03P	0.85	281.5	79.60	11.92	7.97	331.1
V08.01	0.95	1004.6	79.23	-0.00	2.11	1057.5
V09.01P	0.95	2.5	83.91	13.97	10.10	2.7
T09.04P	0.95	283.6	95.63	13.20	6.84	298.5
V09.01	0.95	1054.8	96.50	0.00	2.09	1110.4
V09.02P	0.95	8.2	96.38	13.76	10.13	8.6

Floating Position

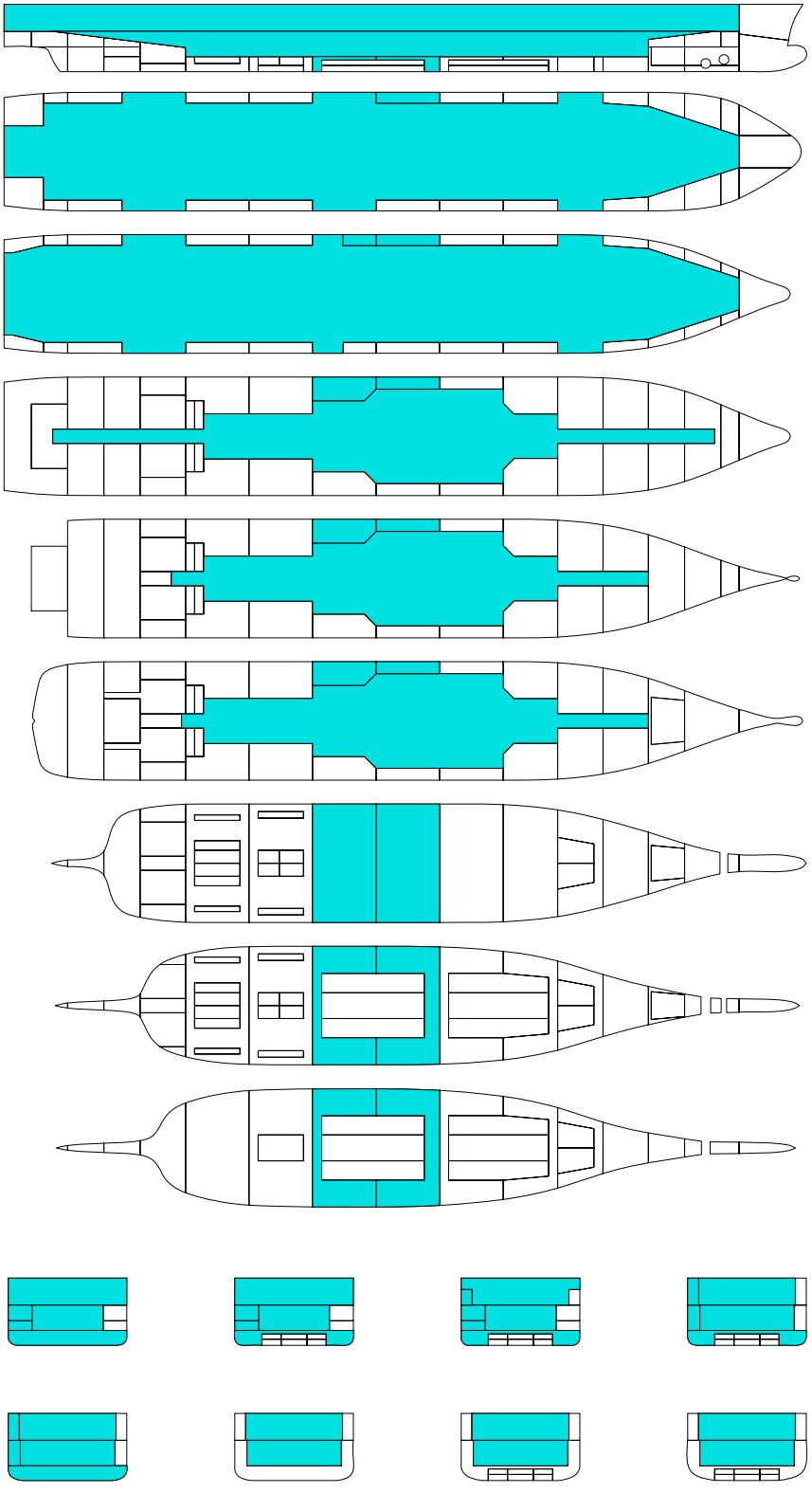
(Draughts given on centreline and perpedicular to waterline)

Draught Forward	TF	8.996 m	Heel Angle	7.801 Deg (To Port)
Draught	T	8.291 m	Trim	1.412 m
Draught Aft	TA	7.585 m	Trim Angle	0.426 Deg

Damage GZ Particulars

Range	8.584 Deg (Port)
GZ Max	0.046 m
Angle at GZ Max	11.495 Deg (Port)
Area Under GZ Curve	0.004 m.rad

Damage Case Drawing

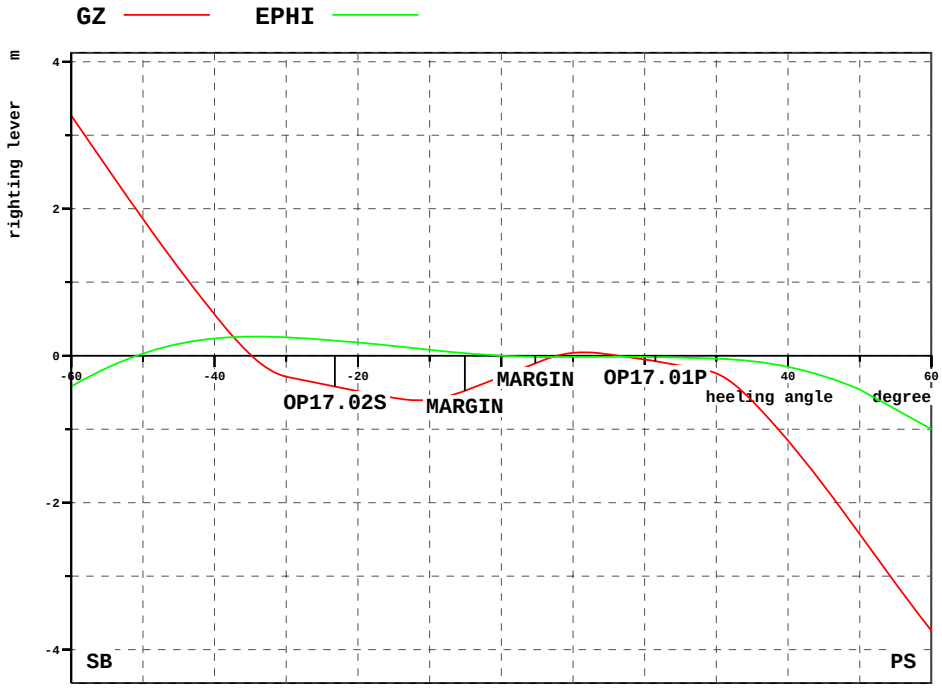


Damaged GZ Curve

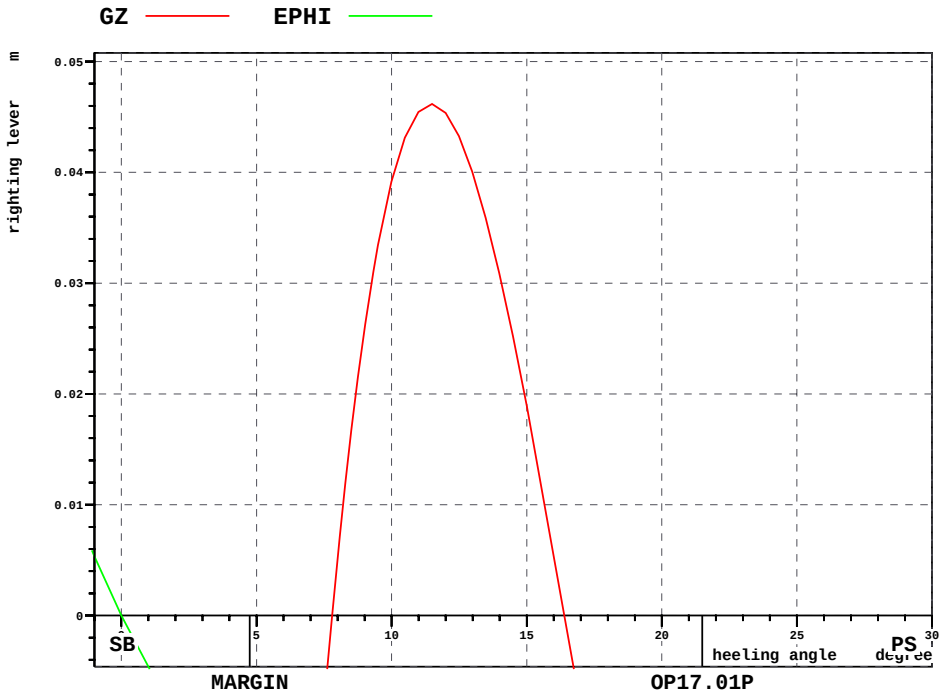
Initial condition : DS, Deepest subdivision draught
Damage case : R7_P8-9.3.0, Zones Z08-Z09 Port, b3
Stage of damage : 1
Phase of stage : EQ

HEEL degree	GZ m	EPHI rad*m	T m	TR m	OPNAME	IMRES m	RESMRG m
-60.0	3.267	-0.419	5.378	0.204	OP17.02S	-8.90	-13.19
-50.0	1.861	0.028	6.012	0.768	OP17.02S	-6.50	-11.06
-45.0	1.188	0.161	6.292	0.994	OP17.02S	-5.23	-9.88
-40.0	0.562	0.237	6.568	1.134	OP17.02S	-3.95	-8.66
-35.0	0.014	0.261	6.837	1.244	OP17.02S	-2.68	-7.41
-30.0	-0.285	0.247	7.185	1.261	OP17.02S	-1.50	-6.22
-27.0	-0.345	0.230	7.413	1.345	OP17.02S	-0.85	-5.54
-24.0	-0.403	0.211	7.600	1.431	OP17.02S	-0.18	-4.83
-21.0	-0.463	0.188	7.752	1.495	OP17.02S	0.51	-4.09
-18.0	-0.522	0.162	7.872	1.524	OP17.02S	1.22	-3.32
-15.0	-0.574	0.133	7.967	1.510	OP17.02S	1.93	-2.53
-12.0	-0.606	0.102	8.048	1.457	OP17.02S	2.64	-1.73
-9.0	-0.589	0.071	8.131	1.386	OP17.02S	3.33	-0.95
-7.0	-0.542	0.051	8.190	1.365	OP17.02S	3.76	-0.46
-5.0	-0.474	0.033	8.244	1.380	OP17.02S	4.16	0.02
-4.0	-0.437	0.025	8.267	1.391	OP17.02S	4.37	0.25
-3.0	-0.400	0.018	8.286	1.401	OP17.02S	4.57	0.48
-2.0	-0.362	0.011	8.301	1.410	OP17.02S	4.77	0.70
-1.0	-0.324	0.005	8.314	1.417	OP17.02S	4.97	0.88
0.0	-0.287	0.000	8.323	1.421	OP17.02S	5.17	0.89
1.0	-0.248	-0.005	8.329	1.422	OP17.01P	4.96	0.86
2.0	-0.210	-0.009	8.331	1.420	OP17.01P	4.74	0.67
3.0	-0.172	-0.012	8.331	1.416	OP17.01P	4.52	0.43
4.0	-0.133	-0.015	8.327	1.410	OP17.01P	4.30	0.19
5.0	-0.094	-0.017	8.320	1.403	OP17.01P	4.08	-0.06
7.0	-0.023	-0.019	8.298	1.401	OP17.01P	3.64	-0.57
7.8	0.000	-0.019	8.291	1.412	OP17.01P	3.45	-0.79
9.0	0.026	-0.019	8.276	1.440	OP17.01P	3.17	-1.11
12.0	0.045	-0.016	8.252	1.528	OP17.01P	2.42	-1.95
15.0	0.019	-0.015	8.232	1.579	OP17.01P	1.65	-2.81
18.0	-0.022	-0.015	8.200	1.575	OP17.01P	0.88	-3.66
21.0	-0.067	-0.017	8.137	1.518	OP17.01P	0.12	-4.48
24.0	-0.120	-0.022	8.025	1.416	OP17.01P	-0.60	-5.25
27.0	-0.167	-0.029	7.866	1.284	OP17.01P	-1.29	-5.98
30.0	-0.240	-0.040	7.685	1.204	OP17.01P	-1.99	-6.70
35.0	-0.614	-0.075	7.465	1.075	OP17.01P	-3.27	-8.00
40.0	-1.155	-0.152	7.267	0.866	OP17.01P	-4.59	-9.30
45.0	-1.768	-0.279	7.051	0.615	OP17.01P	-5.90	-10.56
50.0	-2.422	-0.461	6.817	0.293	OP17.01P	-7.19	-11.76
60.0	-3.741	-0.999	6.235	-0.315	OP17.01P	-9.64	-14.14

Damaged GZ Plot (Whole Range)



Damage GZ Plot (Heeling To Port)



Model Test Draught Marks

(Draughts given on centreline and perpedicular to baseline)

Damage Case : R7_P8-9.3.0
Damage Side : PORT
Equilibrium Heel Angle: 7.801 Degrees

Locations of Draught Marks and Breadths at Draught Mark locations

Draught Mark	X Location	Full Breadth At Mean Damage Draught
AP	0.000 m	27.902 m
AFT QUARTER	47.500 m	29.400 m
MIDSHIP	95.000 m	29.400 m
FP	190.000 m	1.322 m

Draughts in Intact, Damage Equilibrium

Draught Marks at AP	Intact	Equilibrium
Port	6.400 m	9.567 m
Mean	6.400 m	7.655 m
Starboard	6.400 m	5.744 m

Draught Marks at Aft Quarter	Intact	Equilibrium
Port	6.400 m	10.026 m
Mean	6.400 m	8.012 m
Starboard	6.400 m	5.998 m

Draught Marks at Midship	Intact	Equilibrium
Port	6.400 m	10.382 m
Mean	6.400 m	8.368 m
Starboard	6.400 m	6.354 m

Draught Marks at FP	Intact	Equilibrium
Port	6.400 m	9.171 m
Mean	6.400 m	9.080 m
Starboard	6.400 m	8.990 m

Draught Mark Explanation

Damage floating position draught marks calculation shown in red
Modlel Draught marks calculation method shown in green

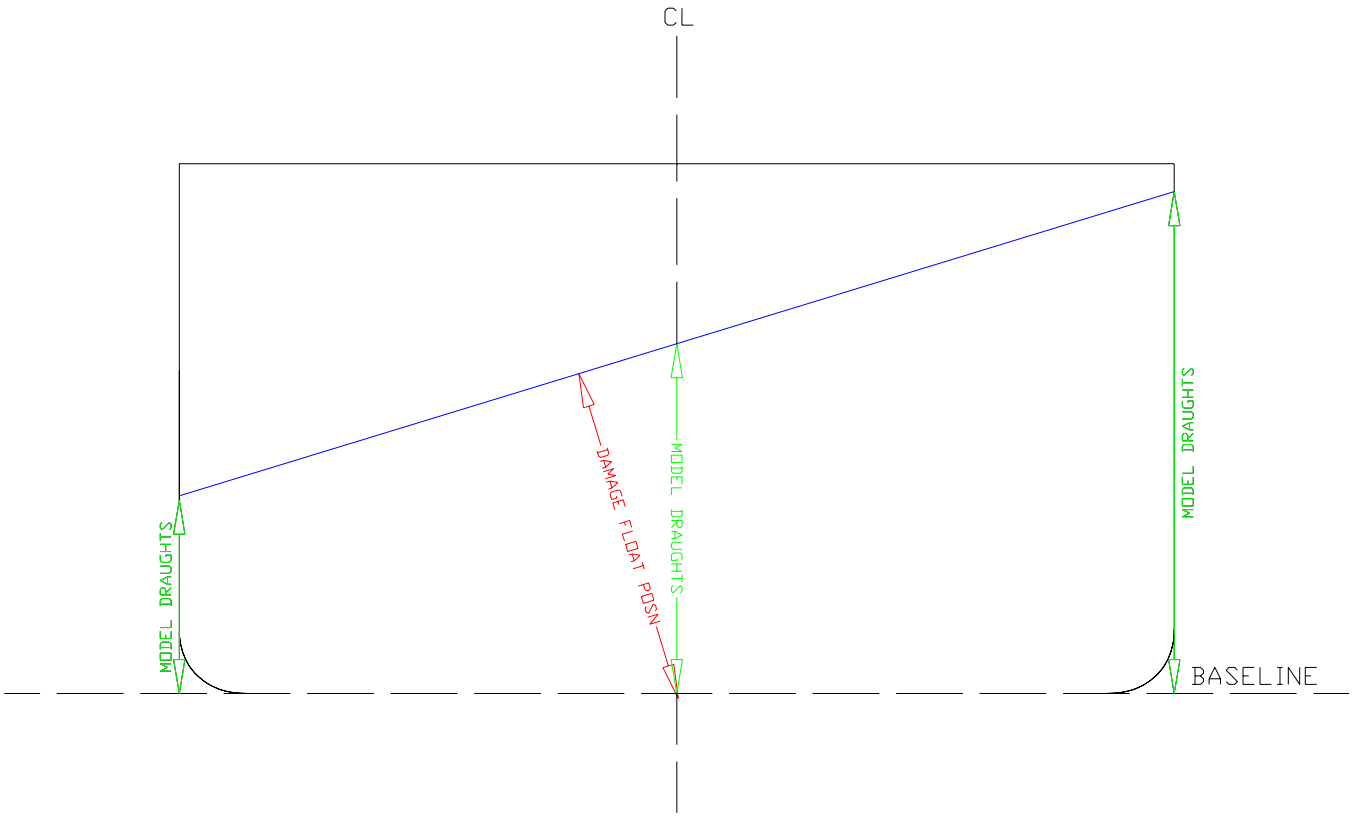


FIGURE 1

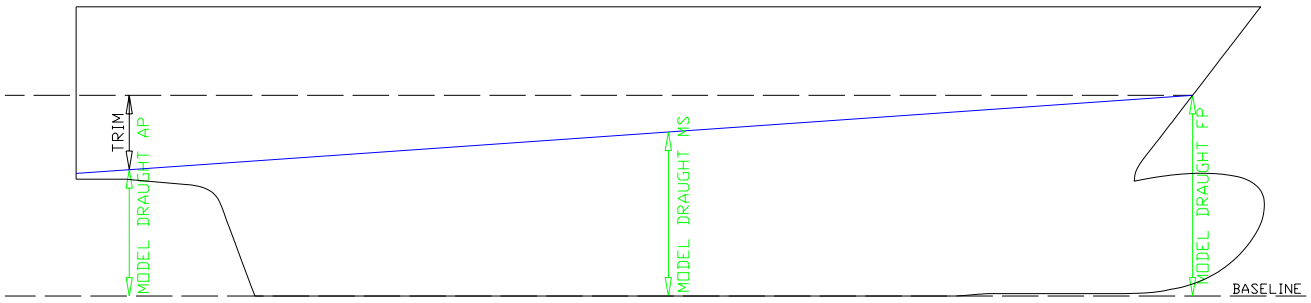


FIGURE 2

Intact Hydrostatics and Stability Information for Single Damage Case
---

Damage Case : R7M4_P7-8.3.0
Damage Side : PORT
Initial Condition : DS

Intact Hydrostatics			Intact Stability		
Midship Draught	:	6.400 m	KMT	:	17.121 m
Trim	:	0.000 m (Between Perps)			
Trim Angle	:	0.000 deg	KG	:	13.371 m
Heel Angle	:	0.000 deg	GM	:	3.750 m
Displacement	:	24319.8 Tonnes			

Moulded Volume : 23649.3 m3 (Actual Floating Position)
LCB : 89.56 m (From AP - Level Trim Floating Position)

MAIN CHARACTERISTICS OF THE VESSEL:

Length betw. perpendiculars	190.00	m
Breadth, moulded	29.40	m
Design draught	6.30	m
X-coord. of after perpendicular	0.00	m
X-coord. of reference point	95.00	m
X-coord. of midship section	95.00	m
X-coord. of building frame 0	0.00	m
Thickness of keelplate	0.010	m
Mean thickness of shell plating	0.012	m
Density of water	1.0250	ton/m3

Sign Conventions

Trim by Bow : +
Heel to Port : +

Calculations are based on MODELHULL date 2011-01-31 time 16:15

Shell thickness used in the calculation	12.0	mm
X-coord. of aft end of DWL	-4.50	m
X-coord. of fore end of DWL	193.04	m

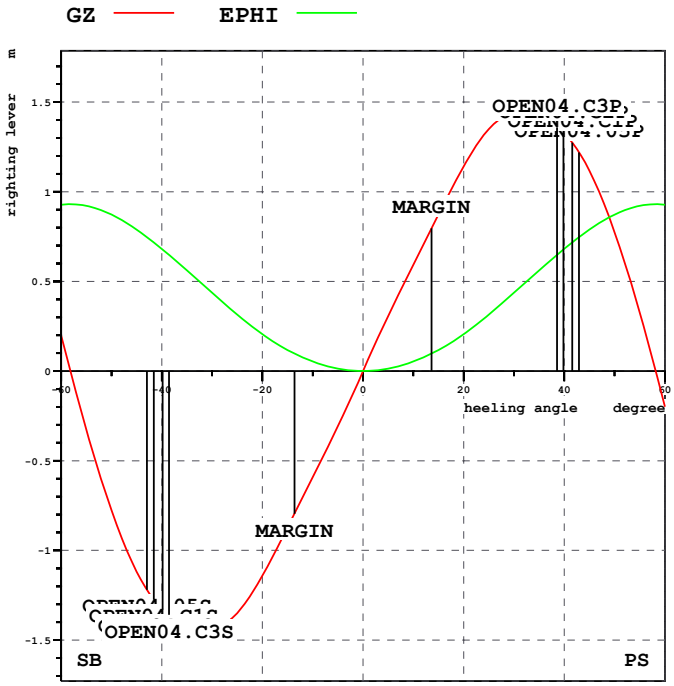
Calc. sections 31
Plate thickness: 12.0mm

Intact GZ Curve

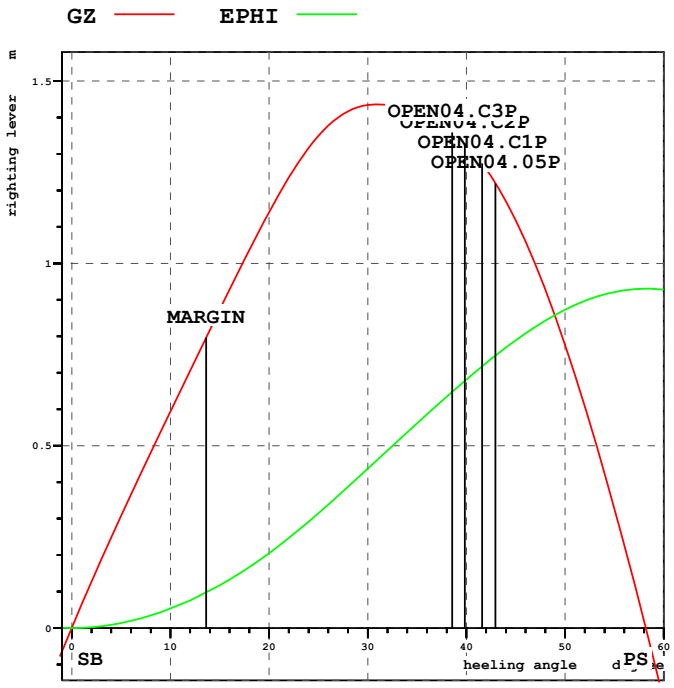
Initial condition : DS, Deepest subdivision draught
Damage case : R7M4_P7-8.3.0, Zones Z07-Z08 Port, b3
Stage of damage : INTACT
Phase of stage : EQ

HEEL degree	GZ m	EPHI rad*m	T m	TR m	OPNAME	IMRES m	RESMRG m
-60.0	0.199	0.928	-0.001	2.626	OPEN04.C.	-4.83	-8.35
-50.0	-0.776	0.873	1.716	2.036	OPEN04.C.	-2.61	-7.05
-45.0	-1.118	0.789	2.563	1.750	OPEN04.C.	-1.47	-6.32
-40.0	-1.325	0.682	3.398	1.455	OPEN04.C.	-0.33	-5.56
-35.0	-1.412	0.562	4.176	1.240	OPEN04.C.	0.83	-4.75
-30.0	-1.434	0.437	4.837	1.030	OPEN04.C.	2.06	-3.82
-27.0	-1.400	0.363	5.169	0.903	OPEN04.C.	2.85	-3.20
-24.0	-1.316	0.291	5.451	0.779	OPEN04.C.	3.65	-2.53
-21.0	-1.190	0.226	5.685	0.660	OPEN04.C.	4.48	-1.83
-18.0	-1.038	0.167	5.880	0.543	OPEN04.C.	5.32	-1.10
-15.0	-0.873	0.117	6.039	0.431	OPEN04.C.	6.17	-0.35
-12.0	-0.706	0.076	6.168	0.322	OPEN04.C.	7.01	0.41
-9.0	-0.537	0.043	6.268	0.217	OPEN04.C.	7.84	1.19
-7.0	-0.424	0.026	6.319	0.152	OPEN04.C.	8.39	1.71
-5.0	-0.308	0.014	6.357	0.094	OPEN04.C.	8.93	2.23
-4.0	-0.249	0.009	6.372	0.068	OPEN04.C.	9.20	2.49
-3.0	-0.188	0.005	6.384	0.044	OPEN04.C.	9.47	2.75
-2.0	-0.127	0.002	6.393	0.022	OPEN04.C.	9.73	3.01
-1.0	-0.065	0.001	6.398	0.005	OPEN04.C.	9.99	3.27
0.0	0.000	0.000	6.400	0.000	OPEN04.0.	10.25	3.52
1.0	0.065	0.001	6.398	0.005	OPEN04.C.	9.99	3.27
2.0	0.127	0.002	6.393	0.022	OPEN04.C.	9.73	3.01
3.0	0.188	0.005	6.384	0.044	OPEN04.C.	9.47	2.75
4.0	0.249	0.009	6.372	0.068	OPEN04.C.	9.20	2.49
5.0	0.308	0.014	6.357	0.094	OPEN04.C.	8.93	2.23
7.0	0.424	0.026	6.319	0.152	OPEN04.C.	8.39	1.71
9.0	0.537	0.043	6.268	0.217	OPEN04.C.	7.84	1.19
12.0	0.706	0.076	6.168	0.322	OPEN04.C.	7.01	0.41
15.0	0.873	0.117	6.039	0.431	OPEN04.C.	6.17	-0.35
18.0	1.038	0.167	5.880	0.543	OPEN04.C.	5.32	-1.10
21.0	1.190	0.226	5.685	0.660	OPEN04.C.	4.48	-1.83
24.0	1.316	0.291	5.451	0.779	OPEN04.C.	3.65	-2.53
27.0	1.400	0.363	5.169	0.903	OPEN04.C.	2.85	-3.20
30.0	1.434	0.437	4.837	1.030	OPEN04.C.	2.06	-3.82
35.0	1.412	0.562	4.176	1.240	OPEN04.C.	0.83	-4.75
40.0	1.325	0.682	3.398	1.455	OPEN04.C.	-0.33	-5.56
45.0	1.118	0.789	2.563	1.750	OPEN04.C.	-1.47	-6.32
50.0	0.776	0.873	1.716	2.036	OPEN04.C.	-2.61	-7.05
60.0	-0.199	0.928	-0.001	2.626	OPEN04.C.	-4.83	-8.35

Intact GZ Plot (Whole Range)



Intact GZ Plot (Heeling To Port)



Damage Hydrostatics and Stability Information for Single Damage Case

Damage Case : R7M4_P7-8.3.0
Damage Side : PORT
Initial Condition : DS
Flooding Stage : 1
Phase of Stage : EQ

Damaged Compartments

Room	Moulded Vol m3	PERM	Net Vol m3	XCG m	YCG m	ZCG m
R04.C1P_MOD3	2163.6	0.90	1947.22	49.15	9.00	13.32
T07.05P	30.2	0.95	28.73	64.13	12.00	2.84
R07.01P	1190.8	0.85	1012.18	64.13	10.90	8.38
V07.01	1316.9	0.95	1251.10	64.20	-0.00	1.86
R03.06_MOD4	9451.4	0.90	8506.28	91.63	0.00	6.84
R08.01P	215.0	0.85	182.76	79.56	11.84	4.89
R08.03P	346.5	0.85	294.53	79.56	11.84	8.05
V08.01	1057.5	0.95	1004.63	79.23	0.00	2.11
V09.01P	85.2	0.95	80.94	83.63	13.35	11.91
R04.C2P	1643.0	0.90	1478.67	86.61	9.13	13.40

Flooded Water Volume in Damaged Compartments

Room	Permeability	Flooded Vol m3	XCG m	YCG m	ZCG m
R04.C1P_.	0.90	13.6	39.54	13.08	10.16
T07.05P	0.95	28.7	64.13	12.00	2.84
R07.01P	0.85	757.4	64.13	10.31	6.79
V07.01	0.95	1251.1	64.20	-0.00	1.86
R03.06_M.	0.90	6273.8	91.74	1.04	6.09
R08.01P	0.85	182.8	79.56	11.84	4.89
R08.03P	0.85	291.2	79.57	11.87	8.03
V08.01	0.95	1004.6	79.23	-0.00	2.11
V09.01P	0.95	8.7	83.64	13.58	10.22
R04.C2P	0.90	11.3	80.18	12.88	10.17

Floating Position

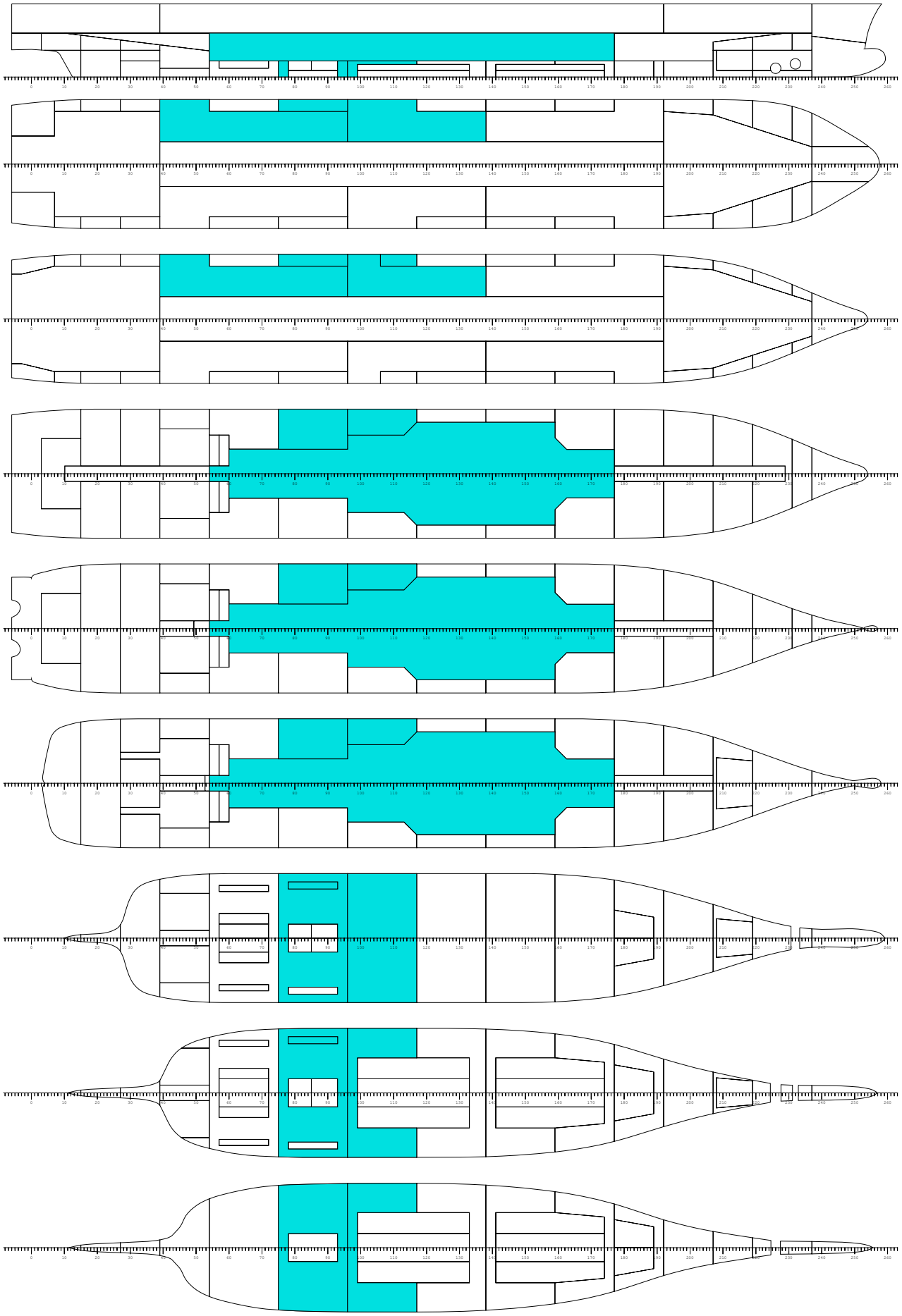
(Draughts given on centreline and perpedicular to waterline)

Draught Forward	TF	8.339 m	Heel Angle	8.844 Deg (To Port)
Draught	T	8.248 m	Trim	0.183 m
Draught Aft	TA	8.156 m	Trim Angle	0.055 Deg

Damage GZ Particulars

Range	40.741 Deg (Port)
GZ Max	0.910 m
Angle at GZ Max	33.025 Deg (Port)
Area Under GZ Curve	0.378 m.rad

Damage Case Drawing

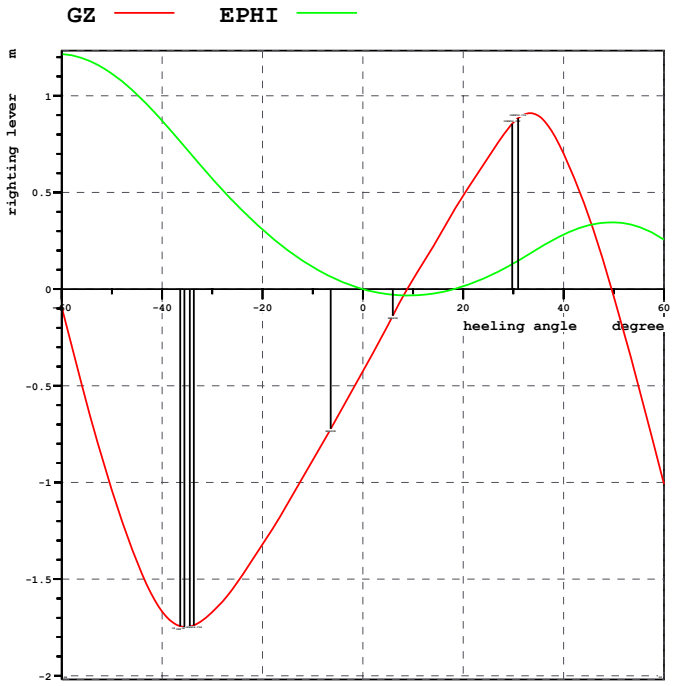


Damaged GZ Curve

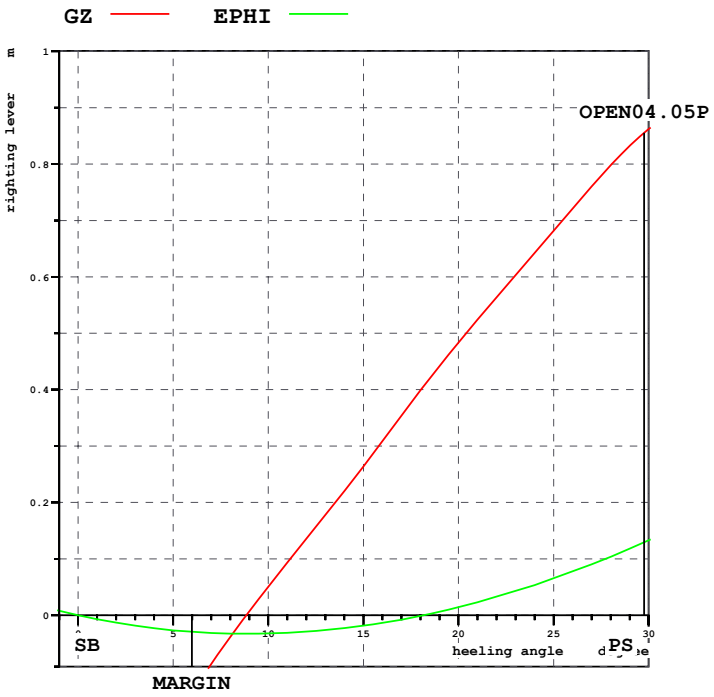
Initial condition : DS, Deepest subdivision draught
Damage case : R7M4_P7-8.3.0, Zones Z07-Z08 Port, b3
Stage of damage : 1
Phase of stage : EQ

HEEL degree	GZ m	EPHI rad*m	T m	TR m	OPNAME	IMRES m	RESMRG m
-60.0	-0.094	1.217	1.136	2.192	OPEN04.C.	-5.90	-9.39
-50.0	-1.040	1.115	2.832	1.736	OPEN04.C.	-3.67	-8.09
-45.0	-1.412	1.007	3.681	1.464	OPEN04.C.	-2.54	-7.38
-40.0	-1.668	0.872	4.525	1.176	OPEN04.C.	-1.41	-6.63
-35.0	-1.748	0.721	5.353	0.890	OPEN04.C.	-0.29	-5.85
-30.0	-1.671	0.571	6.125	0.684	OPEN04.C.	0.83	-5.03
-27.0	-1.587	0.486	6.529	0.574	OPEN04.C.	1.54	-4.48
-24.0	-1.479	0.406	6.886	0.478	OPEN04.C.	2.27	-3.90
-21.0	-1.359	0.331	7.202	0.403	OPEN04.C.	3.01	-3.29
-18.0	-1.240	0.263	7.482	0.353	OPEN04.C.	3.75	-2.66
-15.0	-1.111	0.202	7.719	0.321	OPEN04.C.	4.51	-2.01
-12.0	-0.975	0.147	7.912	0.306	OPEN04.C.	5.27	-1.33
-9.0	-0.839	0.099	8.060	0.307	OPEN04.C.	6.04	-0.62
-7.0	-0.750	0.072	8.134	0.314	OPEN04.C.	6.55	-0.14
-5.0	-0.657	0.047	8.193	0.323	OPEN04.C.	7.06	0.34
-4.0	-0.610	0.036	8.218	0.327	OPEN04.C.	7.31	0.58
-3.0	-0.564	0.026	8.239	0.329	OPEN04.C.	7.57	0.83
-2.0	-0.517	0.016	8.257	0.329	OPEN04.C.	7.82	1.07
-1.0	-0.471	0.008	8.272	0.326	OPEN04.C.	8.07	1.31
0.0	-0.425	0.000	8.283	0.321	OPEN04.0.	8.23	1.48
1.0	-0.378	-0.007	8.292	0.314	OPEN04.C.	8.05	1.30
2.0	-0.331	-0.013	8.297	0.305	OPEN04.C.	7.78	1.04
3.0	-0.283	-0.019	8.299	0.293	OPEN04.C.	7.51	0.78
4.0	-0.235	-0.023	8.298	0.279	OPEN04.C.	7.24	0.51
5.0	-0.186	-0.027	8.293	0.263	OPEN04.C.	6.97	0.25
7.0	-0.086	-0.031	8.275	0.227	OPEN04.C.	6.42	-0.27
8.8	0.000	-0.033	8.248	0.183	OPEN04.C.	5.91	-0.74
9.0	0.007	-0.033	8.245	0.179	OPEN04.C.	5.87	-0.78
12.0	0.136	-0.029	8.178	0.076	OPEN04.C.	5.04	-1.54
15.0	0.264	-0.019	8.079	-0.043	OPEN04.0.	4.19	-2.32
18.0	0.399	-0.001	7.946	-0.167	OPEN04.0.	3.28	-3.12
21.0	0.524	0.023	7.763	-0.281	OPEN04.0.	2.40	-3.89
24.0	0.642	0.053	7.531	-0.380	OPEN04.0.	1.55	-4.60
27.0	0.760	0.090	7.253	-0.456	OPEN04.0.	0.72	-5.28
30.0	0.862	0.133	6.923	-0.507	OPEN04.0.	-0.06	-5.89
35.0	0.897	0.211	6.310	-0.602	OPEN04.0.	-1.35	-6.87
40.0	0.701	0.282	5.682	-0.690	OPEN04.0.	-2.66	-7.82
45.0	0.378	0.330	5.026	-0.761	OPEN04.0.	-3.96	-8.73
50.0	-0.037	0.345	4.338	-0.778	OPEN04.0.	-5.22	-9.55
60.0	-1.008	0.256	2.868	-0.689	OPEN04.0.	-7.55	-10.93

Damaged GZ Plot (Whole Range)



Damage GZ Plot (Heeling To Port)



Model Test Draught Marks

(Draughts given on centreline and perpedicular to baseline)

Damage Case : R7M4_P7-8.3.0
Damage Side : PORT
Equilibrium Heel Angle: 8.844 Degrees

Locations of Draught Marks and Breadths at Draught Mark locations

Draught Mark	X Location	Full Breadth At Mean Damage Draught
AP	0.000 m	27.902 m
AFT QUARTER	47.500 m	29.400 m
MIDSHIP	95.000 m	29.400 m
FP	190.000 m	0.808 m

Draughts in Intact, Damage Equilibrium

Draught Marks at AP	Intact	Equilibrium
Port	6.400 m	10.425 m
Mean	6.400 m	8.254 m
Starboard	6.400 m	6.083 m

Draught Marks at Aft Quarter	Intact	Equilibrium
Port	6.400 m	10.588 m
Mean	6.400 m	8.300 m
Starboard	6.400 m	6.013 m

Draught Marks at Midship	Intact	Equilibrium
Port	6.400 m	10.634 m
Mean	6.400 m	8.347 m
Starboard	6.400 m	6.060 m

Draught Marks at FP	Intact	Equilibrium
Port	6.400 m	8.502 m
Mean	6.400 m	8.439 m
Starboard	6.400 m	8.377 m

Draught Mark Explanation

Damage floating position draught marks calculation shown in red
Modlel Draught marks calculation method shown in green

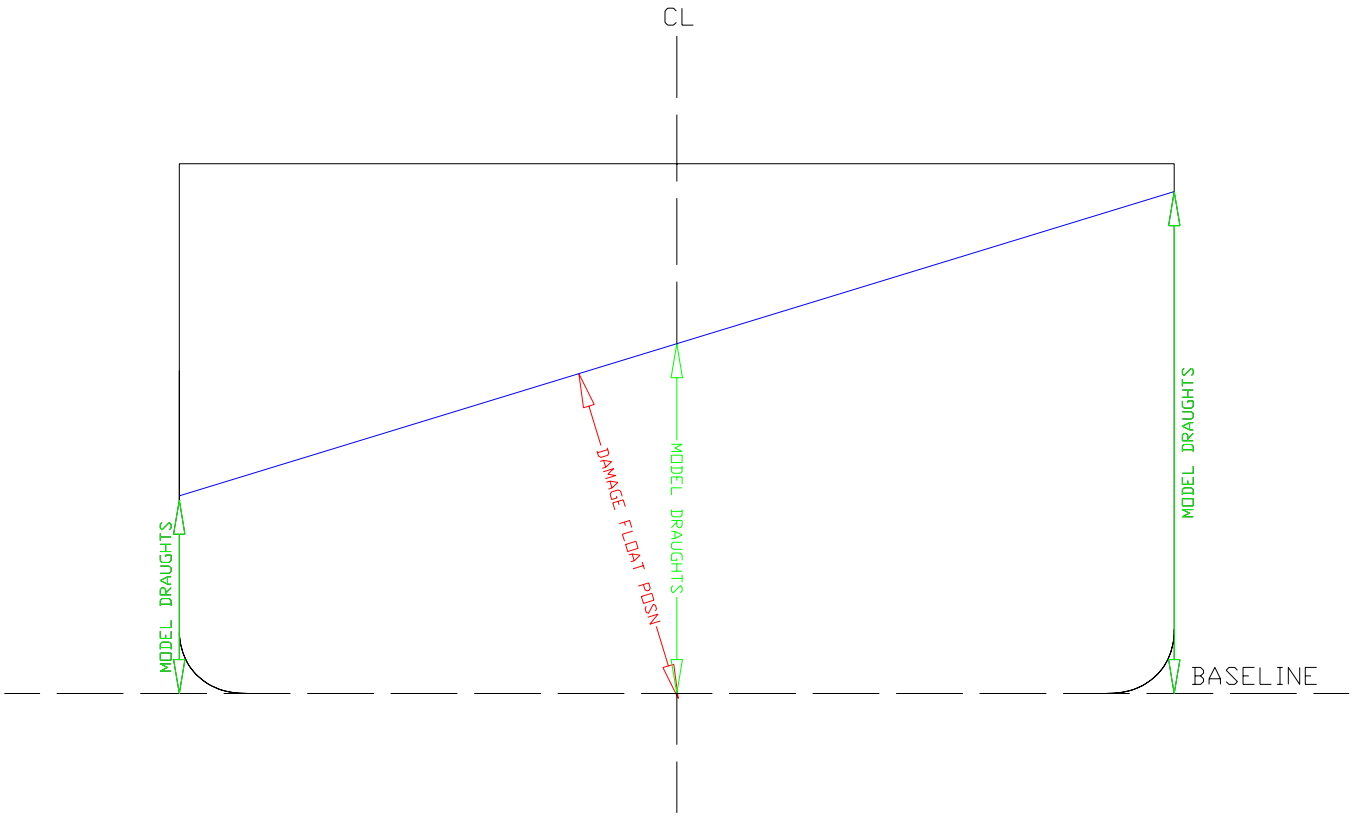


FIGURE 1

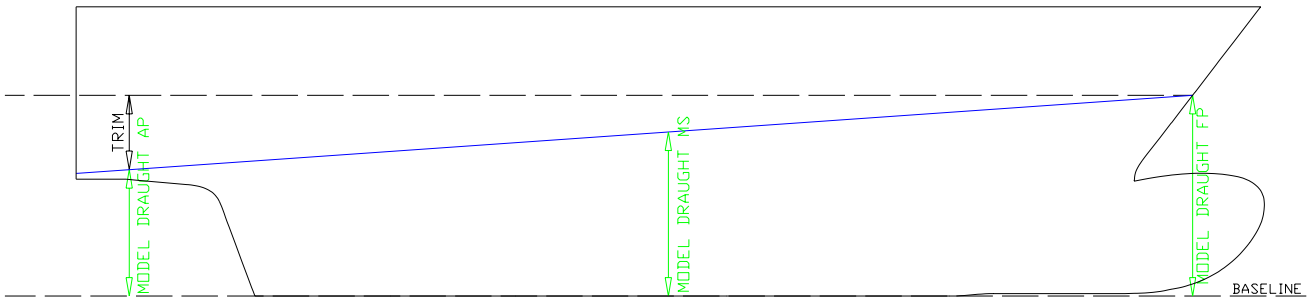


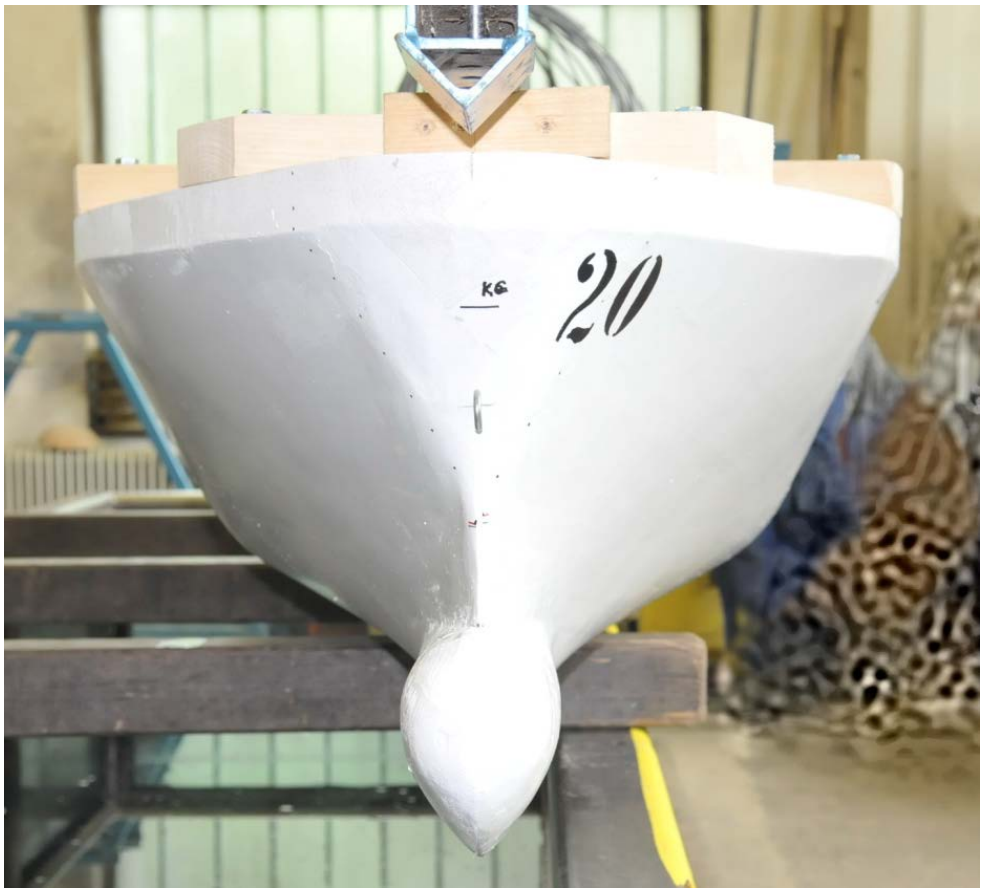
FIGURE 2

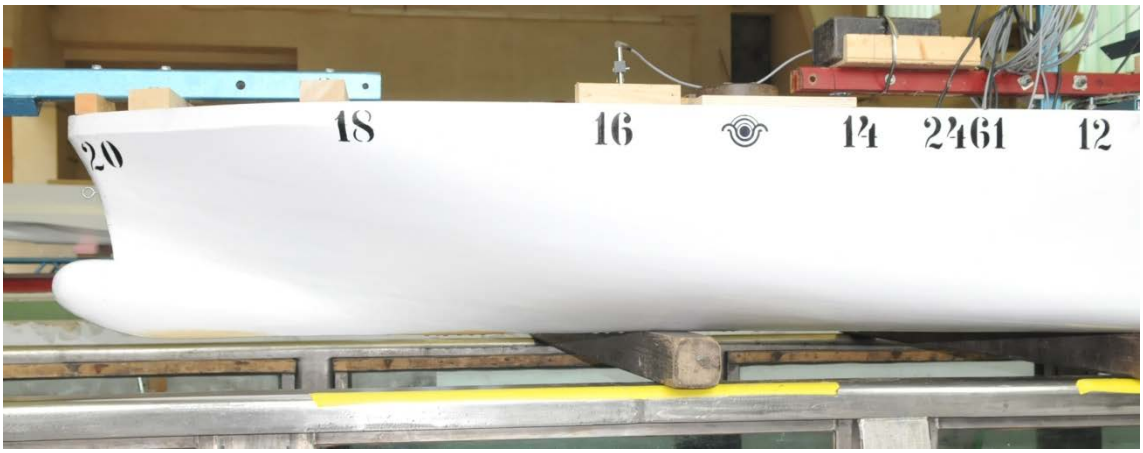
APPENDIX B

PHOTOGRAPHS OF THE MODELS

Model No. 2461 and 2461A

Project: “EMSA 4”


KG
20


20
18
16
14
2461
12


20
18
16
14
2461
12


0
2
4
6
8

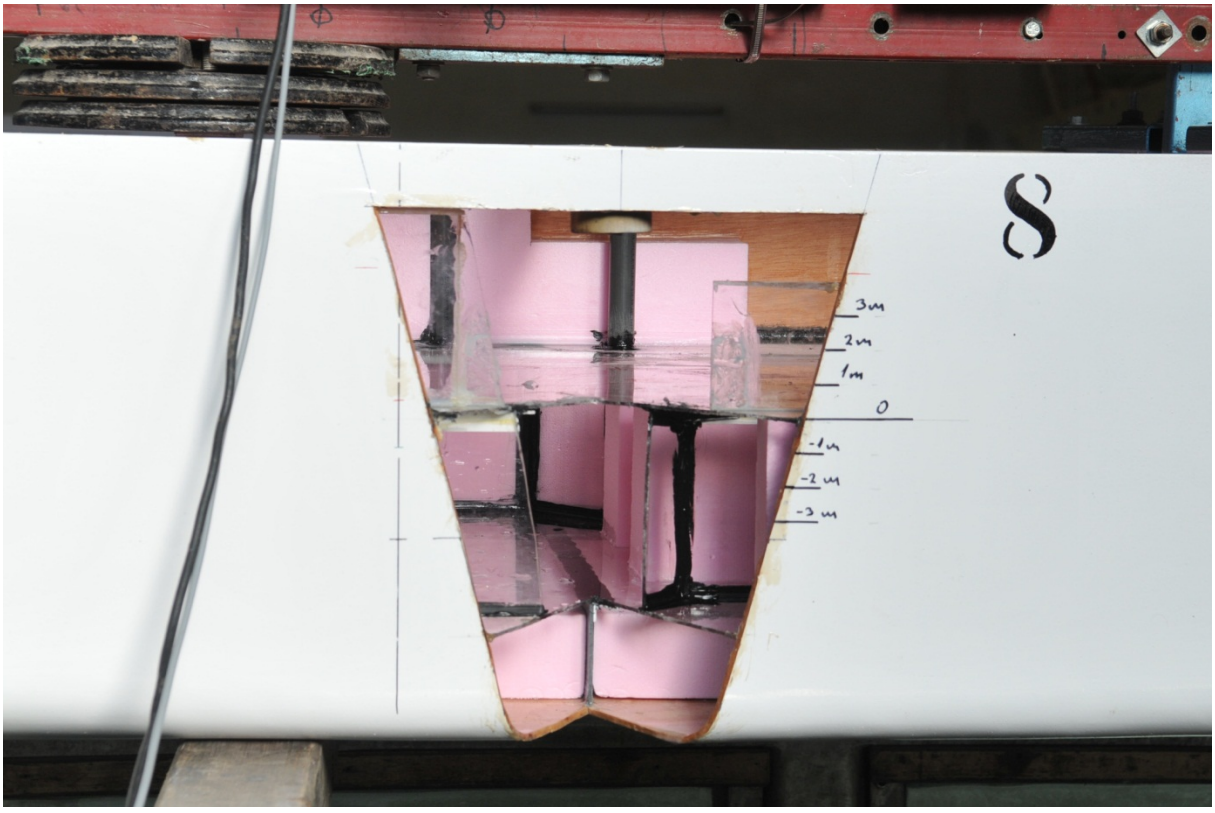
PHOTOGRAPHS OF THE MODEL

Model No. 2461

Project: “EMSA 4”

Damage Case 1 R7_P8-9.3.0


12
8
3m
2m
1m
0
-1m
-2m
-3m


8
3m
2m
1m
0
-1m
-2m
-3m


S
3m
2m
1m
0
-1m
-2m
-3m

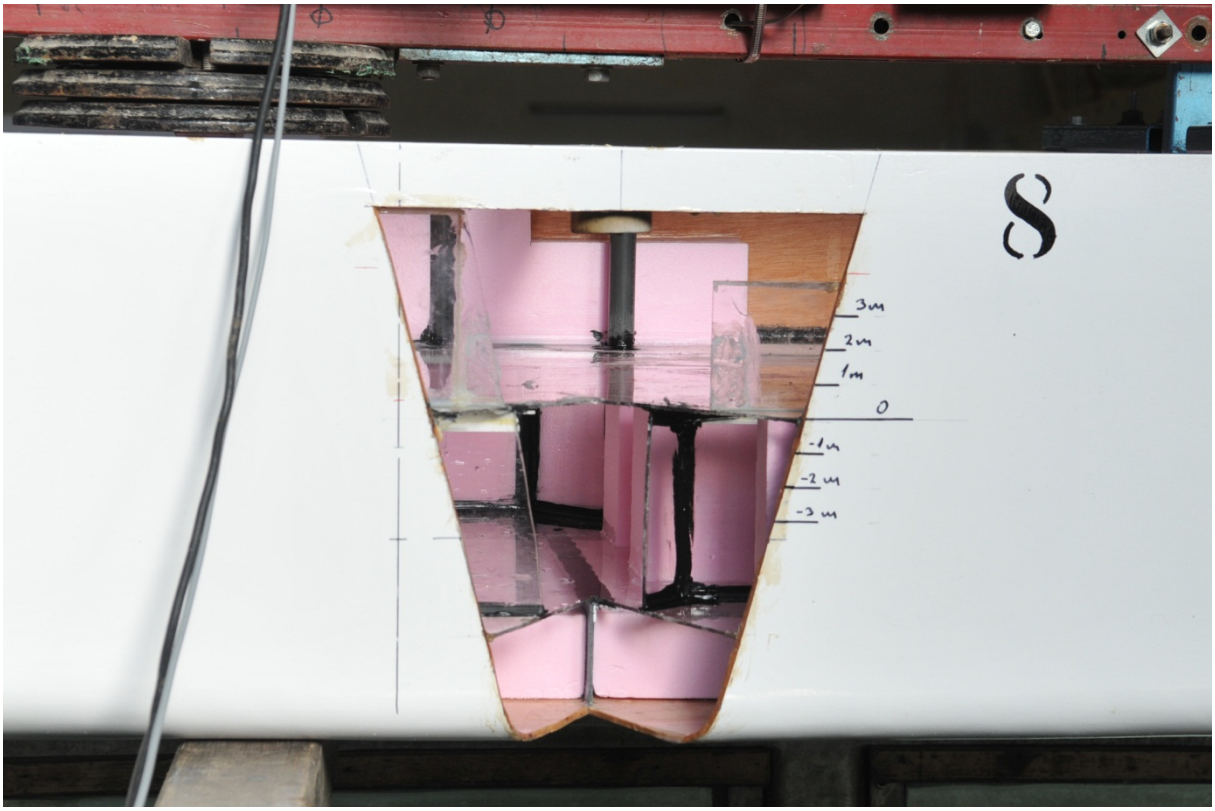
PHOTOGRAPHS OF THE MODEL

Model No. 2461A

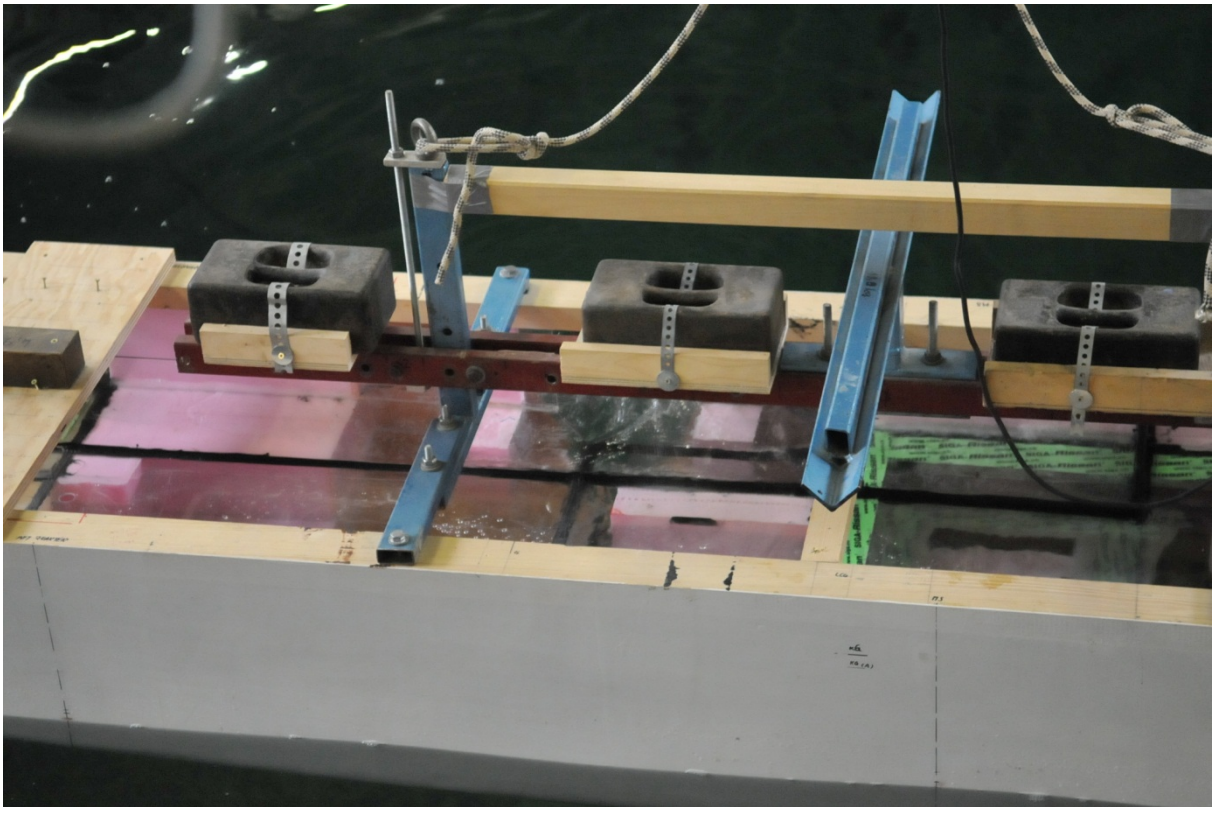
Project: “EMSA 4”

Damage Case 2 R7M4_P7-8.3.0


12
8
3m
2m
1m
0
-1m
-2m
-3m


8
3m
2m
1m
0
-1m
-2m
-3m


S
3m
2m
1m
0
-1m
-2m
-3m



APPENDIX C

MODEL TEST PROTOCOL

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Details of the dimensions and the damage conditions

GENERAL PARTICULARS

Model Scale = 1: 40

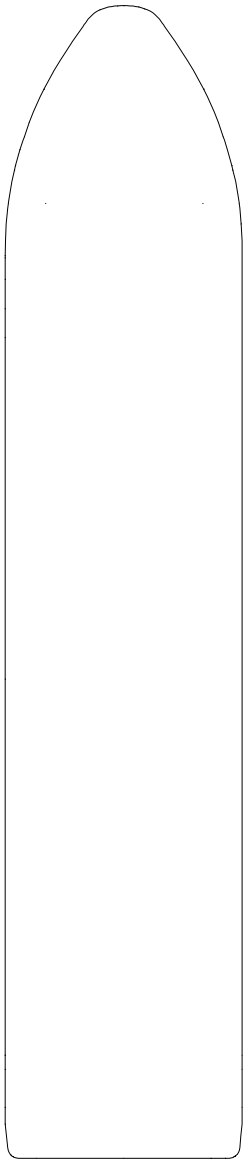
	SHIP (m)	MODEL (mm)	NOTES	CHECKED
MAIN DIMENSIONS				
LMOD	199.016	4975.4		**4975.5**
LBP	190.000	4750.0		**4750.0**
BMLD	29.400	735.0		**736.0**

LONGITUDINAL POSITION OF COLLISION DAMAGE				
Aft Bulkhead	29.250	731.3		**-**
Mid Bulkhead	40.500	1012.5		**1012**
Fwd Bulkhead	56.250	1406.3		**1404**

INTACT DRAUGHTS - DAMAGE 1

Marked in BLACK pen

FP		
Full Size	6.400	m
Model	160.0	mm
Check	**160.0**	mm



Port

Starboard

Midship		
Full Size	6.400	m
Model	160.0	mm
Check	**160.0**	mm

Midship		
Full Size	6.400	m
Model	160.0	mm
Check	**160.0**	mm

Quarter		
Full Size	6.400	m
Model	160.0	mm
Check	**160.0**	mm

Quarter		
Full Size	6.400	m
Model	160.0	mm
Check	**160.0**	mm

AP		
Full Size	6.400	m
Model	160.0	mm
Check	**-**	mm

AP		
Full Size	6.400	m
Model	160.0	mm
Check	**-**	mm

DAMAGE DRAUGHTS - DAMAGE 1

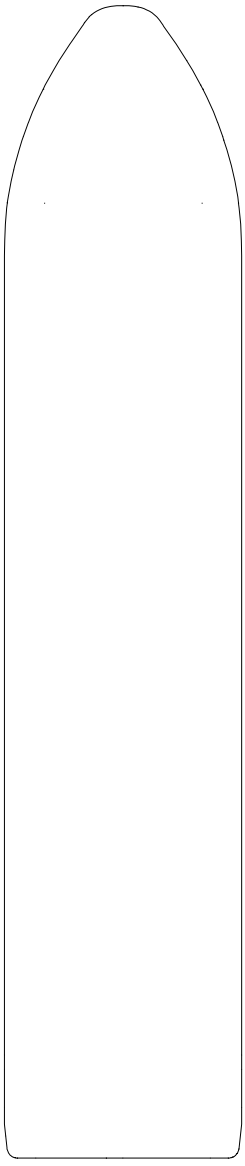
Marked in RED pen

FP		
Full Size	9.080	m
Model	227.0	mm
Check	-	mm

Static Heel	
7.801	degree(s)

FP		
Full Size	9.171	m
Model	229.3	mm
Check	**229.0**	mm

Port



FP		
Full Size	8.990	m
Model	224.8	mm
Check	**224.5**	mm

Starboard

Midship		
Full Size	10.382	m
Model	259.6	mm
Check	**259.5**	mm

Midship		
Full Size	6.354	m
Model	158.9	mm
Check	**189**	mm

Quarter		
Full Size	10.026	m
Model	250.7	mm
Check	**250.5**	mm

Quarter		
Full Size	5.998	m
Model	150.0	mm
Check	**150.0**	mm

AP		
Full Size	9.567	m
Model	239.2	mm
Check	**239.0**	mm

AP		
Full Size	5.744	m
Model	143.6	mm
Check	-	mm

DAMAGE OPENING - DAMAGE 1

	SHIP (m)	MODEL (mm)	NOTES	CHECKED
DAMAGE OPENING				
D_{MLD}	10.00	250.0	Cardeck at V	**247.0**
Length	8.971	224.3	$3\%L_S$ + 3.0m	**224.0**
Dist from AP	87.75	2193.8		**2194.0**
B/5	8.820	220.5	from CL	**-**
	5.880	147.0	from B_{MLD} at FoS	**147.0**

INTACT STABILITY CHARACTERISTICS - DAMAGE 1

	SHIP (m)	MODEL (mm)	NOTES	CHECKED
VESSEL WEIGHT				
Displacement	23649.40	369.5		**370**
(fresh water)	tonnes	kg		

INTACT STABILITY CHARACTERISTICS				
GMT	2.950	73.8		**2.9283**
KG	14.171	354.3		
KM	17.121	428.0		-
LCB (from AP)	89.560	2239.0	From AP (#0) Level trim	

RADIUS OF GYRATION CHARACTERISTICS				
Kxx/B (Roll)	**0.3545**	**0.3545**	Allowable 0.35 - 0.40	
Kyy/LOA (Pitch)	**0.2213**	**0.2213**	Allowable 0.20 - 0.25	

INCLINE DATA				
Incline Weight	318400	4.975	kg	
Lever	10.000	0.250	m	

MEASURED ROLL PERIOD				
Intact (in water)	14.8754	2.3520	sec	
Damage (in water)	16.3932	2.5920	sec	

DAMAGE GZ CHECK				
Weight	**4.975 kg**			
LEVER (cm)	**Heel (Check1)**	**Heel (Check2)**	**Heel (Check3)**	**Heel (Check4)**
0	**7.69**	***8.00***	**7.75**	**7.60**
5	**7.12**	***7.42***	**7.18**	**8.05**
10	**6.54**	**6.88**	**6.59**	**8.63**
15	**5.91**	***6.25***	**5.99**	***capsize***
20	**5.20**	**5.66**	**5.30**	
25	**4.50**	**4.91**	**4.64**	
	before test	**after test**	**after test**	**before test**

INTACT STABILITY CHARACTERISTICS - DAMAGE 1

DAMAGE GZ CHECK				
Weight	4.975 kg			
LEVER (cm)	Heel (Check5)	Heel (Check6)	Heel (Check7)	Heel (Check8)
0	8.08	*7.63*	7.61	7.69
5	7.55	*7.10*	7.04	7.17
10	6.94	6.53	6.52	6.60
15	6.35	*5.93*	5.93	*6.01*
20	5.75	5.27	5.23	5.33
25	5.07	4.58	4.48	4.63
	after test	before test	after test	before test

DAMAGE GZ CHECK				
Weight	4.975 kg			
LEVER (cm)	Heel (Check9)	Heel (Check10)	Heel (Check11)	Heel (Check12)
0	7.68	*7.70*	7.67	7.70
5	7.15	*7.14*	7.13	7.16
10	6.58	6.59	6.58	6.60
15	6.00	*6.00*	6.00	*6.01*
20	5.35	5.34	5.34	5.35
25	4.66	4.66	4.65	4.67
	after test	before test	after test	before test

DAMAGE GZ CHECK				
Weight	4.975 kg			
LEVER (cm)	Heel (Check13)	Heel (Check14)	Heel (Check15)	Heel (Check16)
0	7.67			
5	7.14			
10	6.60			
15	6.00			
20	5.35			
25	4.66			
	after test			

MODEL TEST EXPERIMENTS - DAMAGE 1

RUN	Hs TARGET	Hs FIX	TIME TO CAPSIZE	COMMENTS
24.06.2010				
29726-01	1.50	1.5087		Survived
02	1.50	1.5160		Survived
03	1.50	1.5183		Survived
04	1.50	1.5189	285	Capsized
05	1.50	1.5249	211	Capsized
29727-01	1.75	1.7853		Survived
02	1.75	1.7850		Survived
03	1.75	1.7724		Survived
04	1.75	1.7637		Survived
05	1.75	1.7836		Survived
29728-01	2.00	2.0369	249	Capsized
25.06.2010				
29728-02	2.00	2.0047		Survived
03	2.00	2.0211		Survived
04	2.00	2.0206		Survived
05	2.00	2.0314	285	Capsized
29732-01	2.25	2.2825		Survived
02	2.25	2.3047		Survived
03	2.25	2.3049	193	Capsized
04	2.25	2.2966	253	Capsized
05	2.25	2.2872	140	Capsized
29.06.2010				
29732-06	2.25	2.2776		Survived
07	2.25	2.2935		Survived
08	2.25	2.2907		Survived
09	2.25	2.2858		Survived
10	2.25	2.2937		Survived
29734-01	2.50	2.5535		Survived
02	2.50	2.5522		Survived
03	2.50	2.5381		Survived
04	2.50	2.5405		Survived
05	2.50	2.5484		Survived
29735-01	2.75	2.8579		Survived
02	2.75	2.8095		Survived
03	2.75	2.8166		Survived
04	2.75	2.7858		Survived
05	2.75	2.8051		Survived

MODEL TEST EXPERIMENTS - DAMAGE 1

RUN	Hs TARGET	Hs FIX	TIME TO CAPSIZE	COMMENTS
29736-01	4.00	4.0612	282	Capsized
02	4.00	4.0641	144	Capsized
03	4.00	4.0520	285	Capsized
30.6.2010				
29736-04	4.00	3.9953	147	Capsized
05	4.00	4.0317	102	Capsized
29737-01	3.50	3.5168	149	Capsized
02	3.50	3.5366	137	Capsized
03	3.50	3.5293	128	Capsized
04	3.50	3.5128	135	Capsized
05	3.50	3.5187	159	Capsized
29738-01	3.00	3.0326	270	Capsized
02	3.00	3.0234	128	Capsized
03	3.00	3.0318	198	Capsized
04	3.00	3.0441	168	Capsized
05	3.00	3.0446	199	Capsized
29735-06	2.75	2.7976		Survived
07	2.75	2.8076		Survived
08	2.75	2.7971		Survived
09	2.75	2.7954		Survived
10	2.75	2.7893		Survived
29738-06	3.00	3.0502	285	Capsized
07	3.00	3.0488	260	Capsized
1.7.2010				
29738-08	3.00	3.0353	200	Capsized
09	3.00	3.0384	141	Capsized
10	3.00	3.0482	183	Capsized
29739-01	2.90	2.9375		Survived
02	2.90	2.9314		Survived
03	2.90	2.9374	243	Capsized
04	2.90	2.9366		Survived
05	2.90	2.9292	190	Capsized
06	2.90	2.9412	239	Capsized
07	2.90	2.9429		Survived
08	2.90	2.9376		Survived
09	2.90	2.9575		Survived
10	2.90	2.9484		Survived
11	2.90	2.9348		Survived
12	2.90	2.9441	272	Capsized

MODEL TEST EXPERIMENTS - DAMAGE 1

RUN	Hs TARGET	Hs FIX	TIME TO CAPSIZE	COMMENTS
29739-13	2.90	2.9339	110	Capsized
14	2.90	2.9438	225	Capsized
15	2.90	2.9514		Survived
16	2.90	2.9472		Survived
02.07.2010				
29739-17	2.90	2.9303	272	Capsized
18	2.90	2.9290	198	Capsized
19	2.90	2.9393	137	Capsized
20	2.90	2.9297	156	Capsized
29740-01	3.00	3.0361	236	Capsized
02	3.00	3.0359	220	Capsized
03	3.00	3.0353	139	Capsized
04	3.00	3.0325	138	Capsized
05	3.00	3.0429	229	Capsized
29741-01	2.75	2.7812		Survived
02	2.75	2.7870		Survived
03	2.75	2.7856		Survived
04	2.75	2.7786	148	Capsized
05	2.75	2.7842	275	Capsized
29739-21	2.90	2.9558		Survived
22	2.90	2.9472	285	Capsized
23	2.90	2.9505		Survived

APPENDIX D

STATISTICS OF WAVES AND ROLL MOTIONS

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Roll Test in Air Measurements

Pitch Test in Air Measurements

Roll Test in Water Measurements (Intact Condition)

Roll Test in Water Measurements (Damaged Condition)

Spectral Characteristics of the Target and Measured Waves

Summary of the Measured Wave and Roll Time Realisations

Inclining Measurements

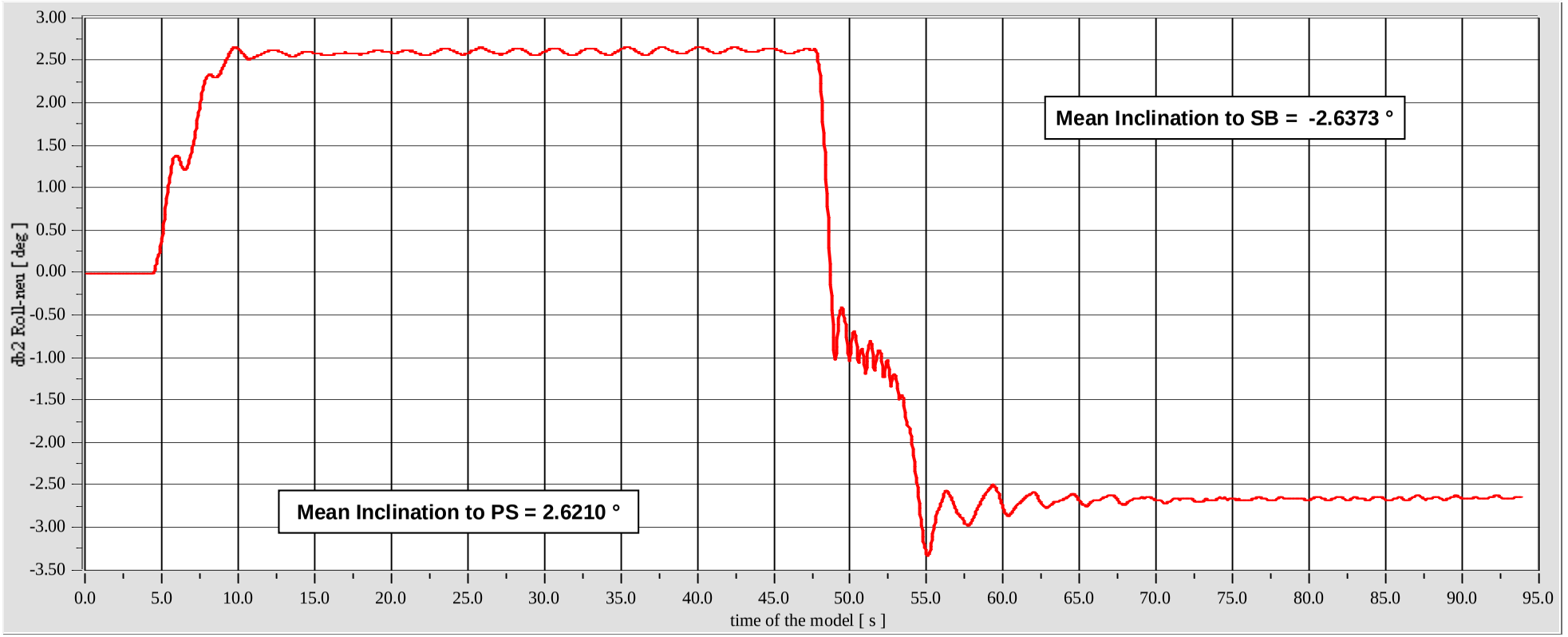
Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Vienna Model Basin Ltd.	Inclining Test

Model No. 2461	Test No. 29725-02	Intact Draught = 6,40 m	



Overall Mean Inclination = -2.6292 °		
Shifted Weight (Model) = 4,953 kg	Target of GM = 2,950 m (Ship)	
Distance to One Side (Model) = 0,25 m	Measured GM = 2,928 m (Ship)	accepted
Volume of the Model = 370,0 kg		

Roll in Air Measurements

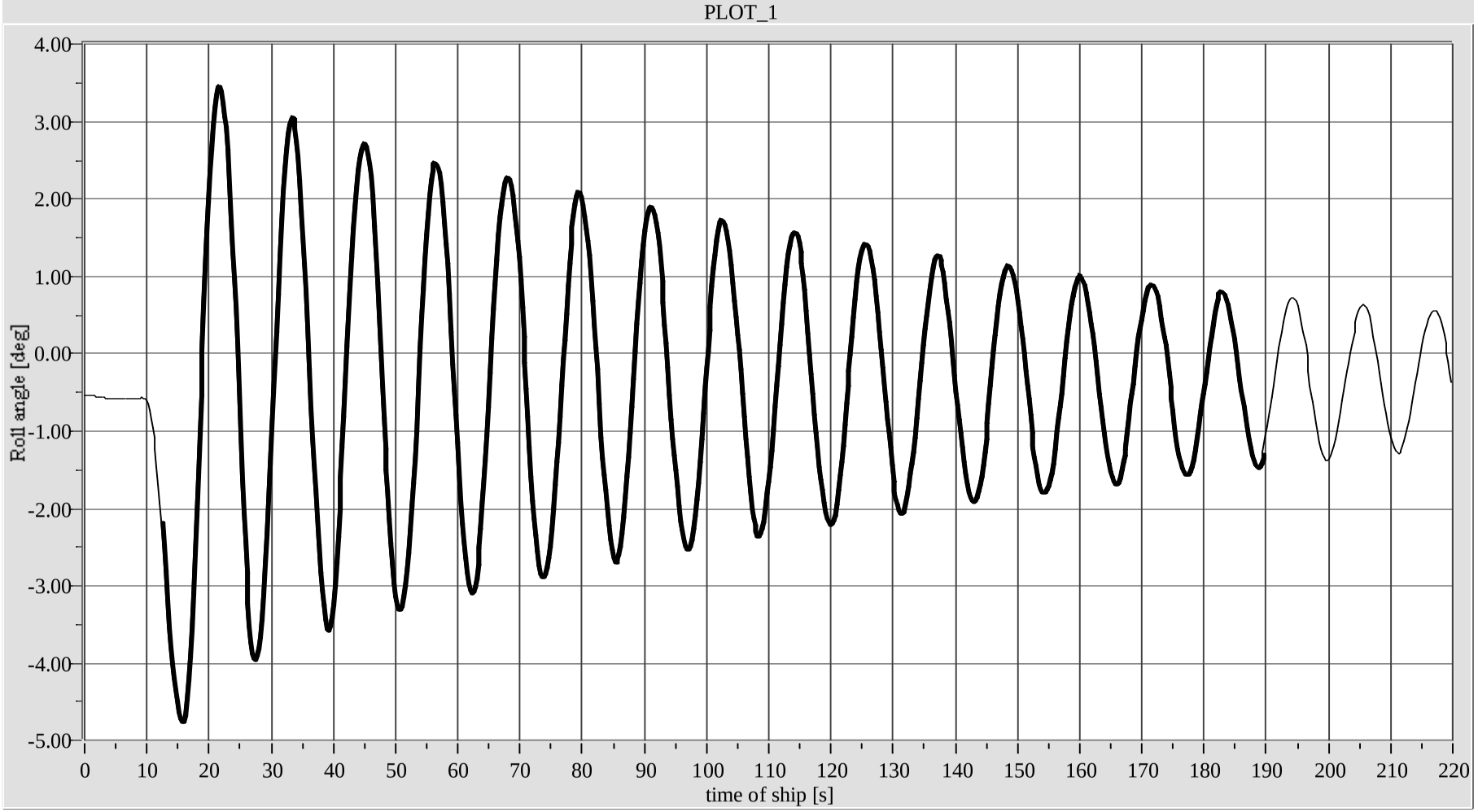
Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Vienna Model Basin Ltd.	Roll Test in Air

Model No. 2461	Test No. 29725-04	No bilge keels



Period (Model / Ship) = 1.8200 s / 11.5107 s	Project: EMSA 4	

Pitch in Air Measurements

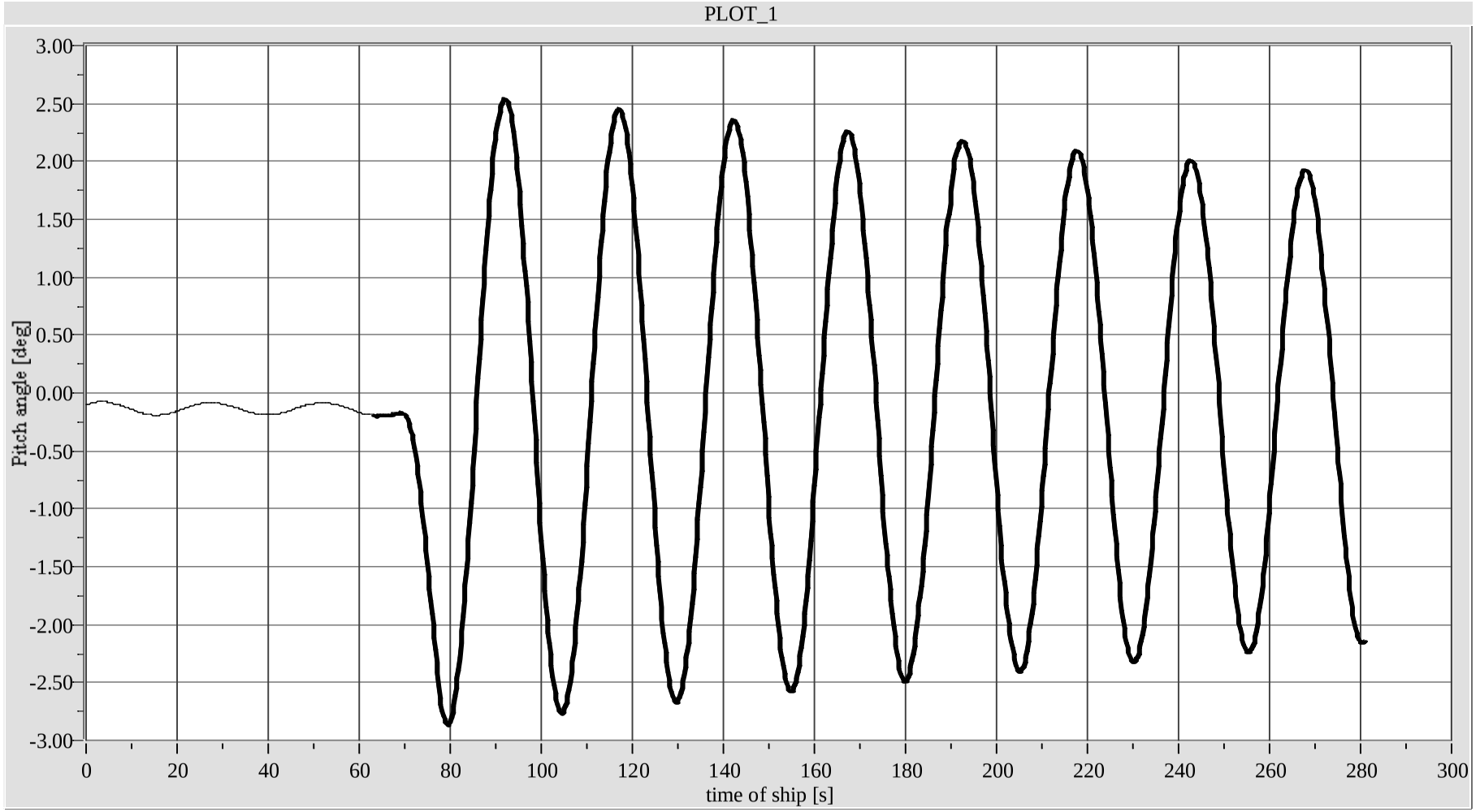
Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Vienna Model Basin Ltd.	Pitch Test in Air

Model No. 2461	Test No. 29725-01	No bilge keels



Period (Model / Ship) = 3.9250 s / 24.8239 s	Project: EMSA 4	

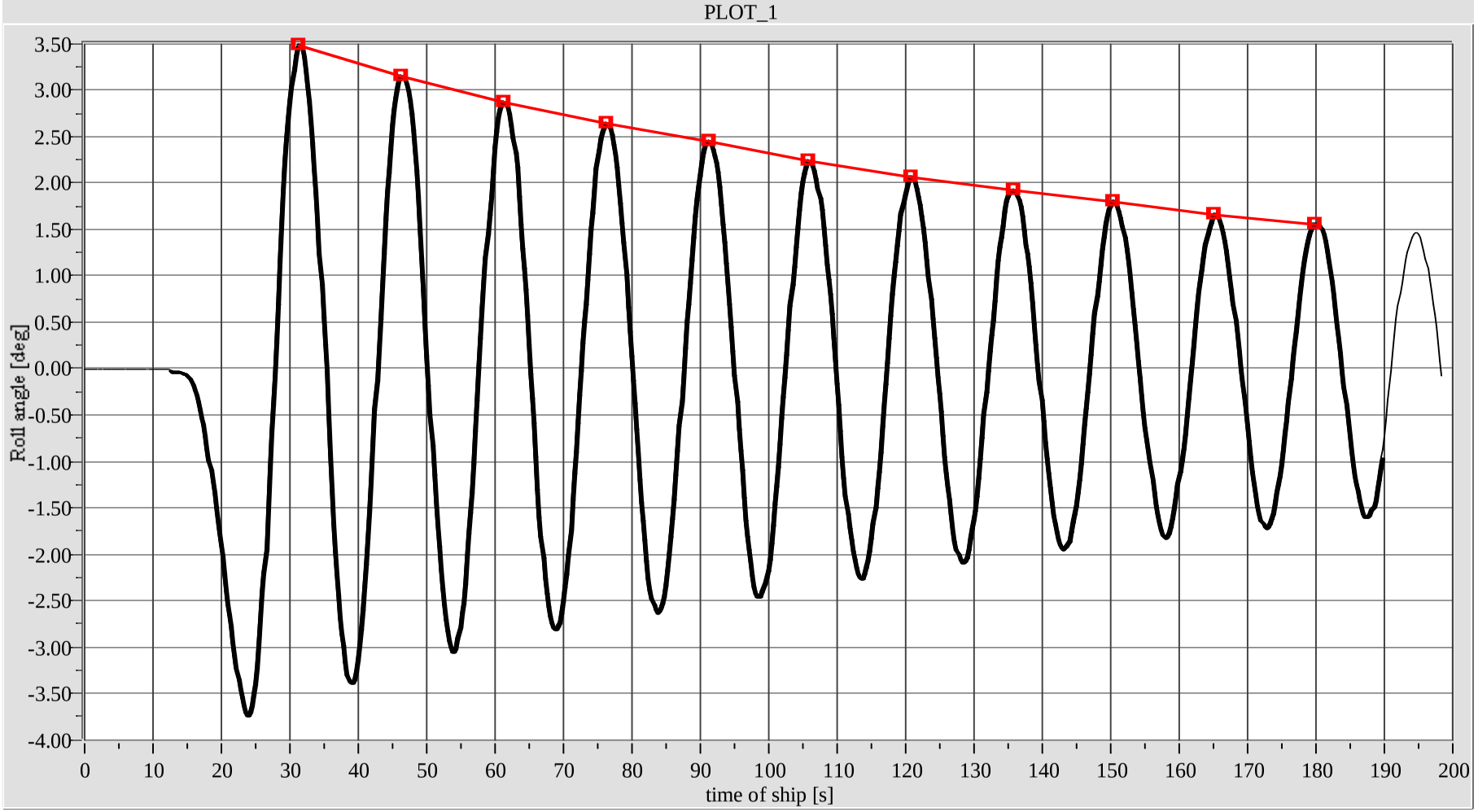
Roll in Water Measurements (Intact Condition)

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Vienna Model Basin Ltd.	Roll decay test in water (intact condition)			
Model No. 2461	Test No. 29725-03	GMT = 2,95 m		without bilge keels



Natural Roll Period (Ship) = 14.8754 s	Project: EMSA 4	Draught = 6,40

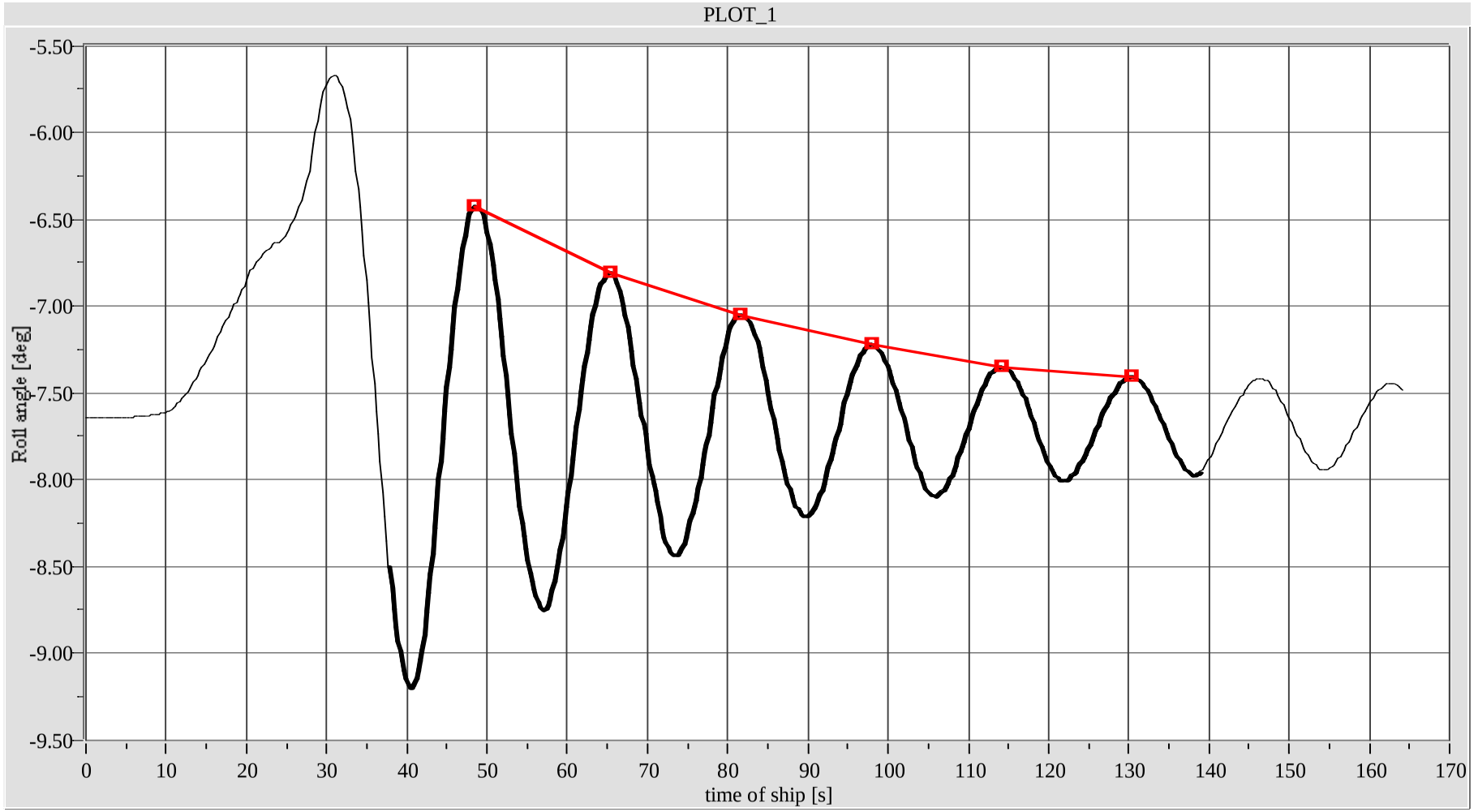
Roll in Water Measurements (Damaged Condition)

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Vienna Model Basin Ltd.	Roll decay test in water (damaged condition)			
Model No. 2461	Test No. 29725-06	GMT = 2,95 m		without bilge keels



Natural Roll Period (Ship) = 16.3932 s	Project: EMSA 4	Draught = 6,40

Summary of the Measured Wave and Roll Time Realisations

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29726-01 to 05, Hs = 1.50 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

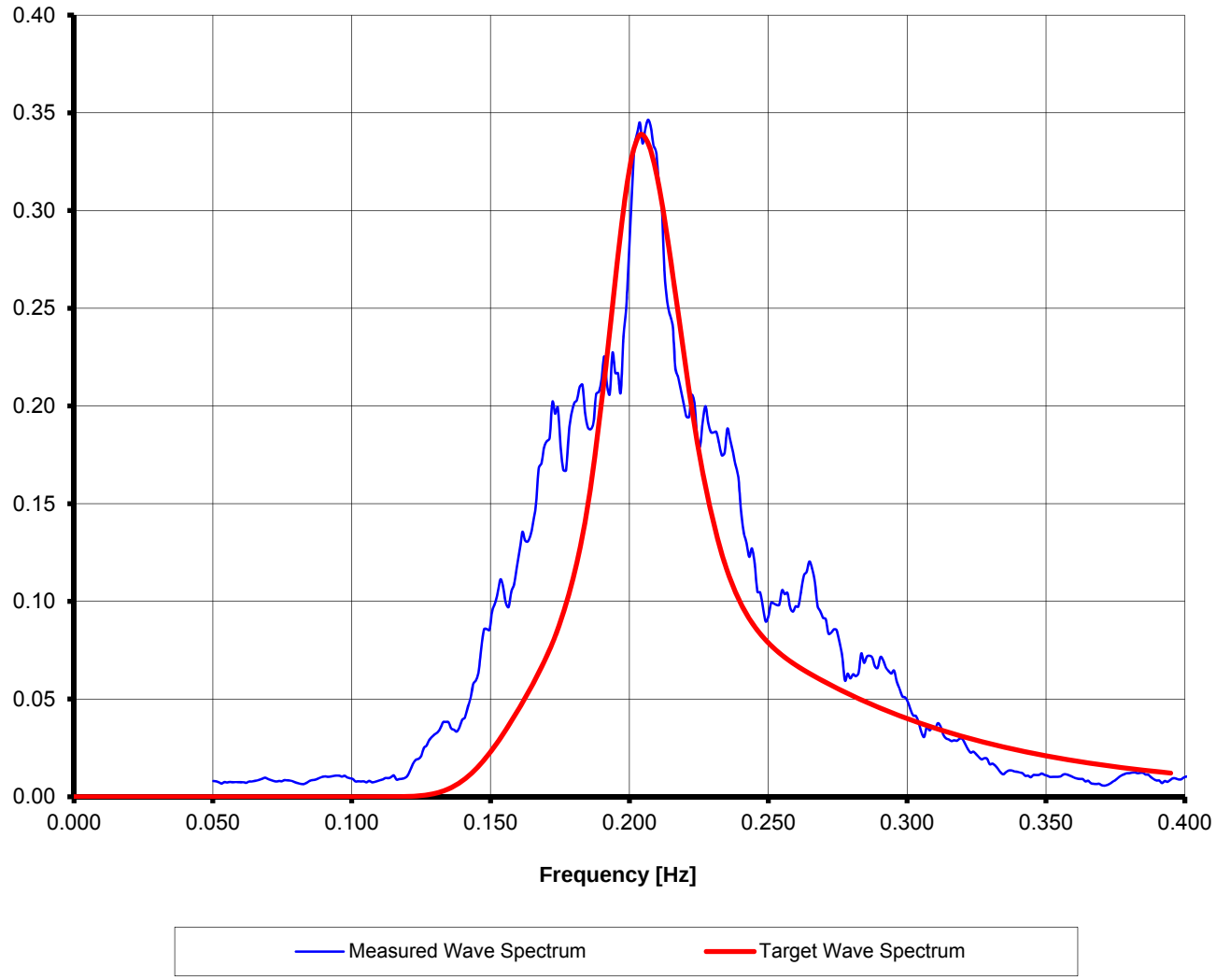
Model No.: 2461
Test No.: 29726-01 to 05
Project: EMSA 4
Damage : R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**1.500**	m
gamma	3.300	
T_P	4.899	s
T_Z	3.812	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29726-01 to 05
Project: EMSA 4
Damage : R7_P8-9.3.0
Wave Type: Jonswap, $\gamma = 3.3$
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
1.500	4.899	3.812	1.500 - 1.538	4.777 - 5.021	3.622 - 4.003

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29726-01	29726-01	1.5087	4.964	3.913						
-02	-02	1.5160	4.955	3.900						
-03	-03	1.5183	4.868	3.764						
-04	-04	1.5159	4.815	3.681						
-05	-05	1.5249	5.017	3.997						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29727-01 to 05, Hs = 1.75 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

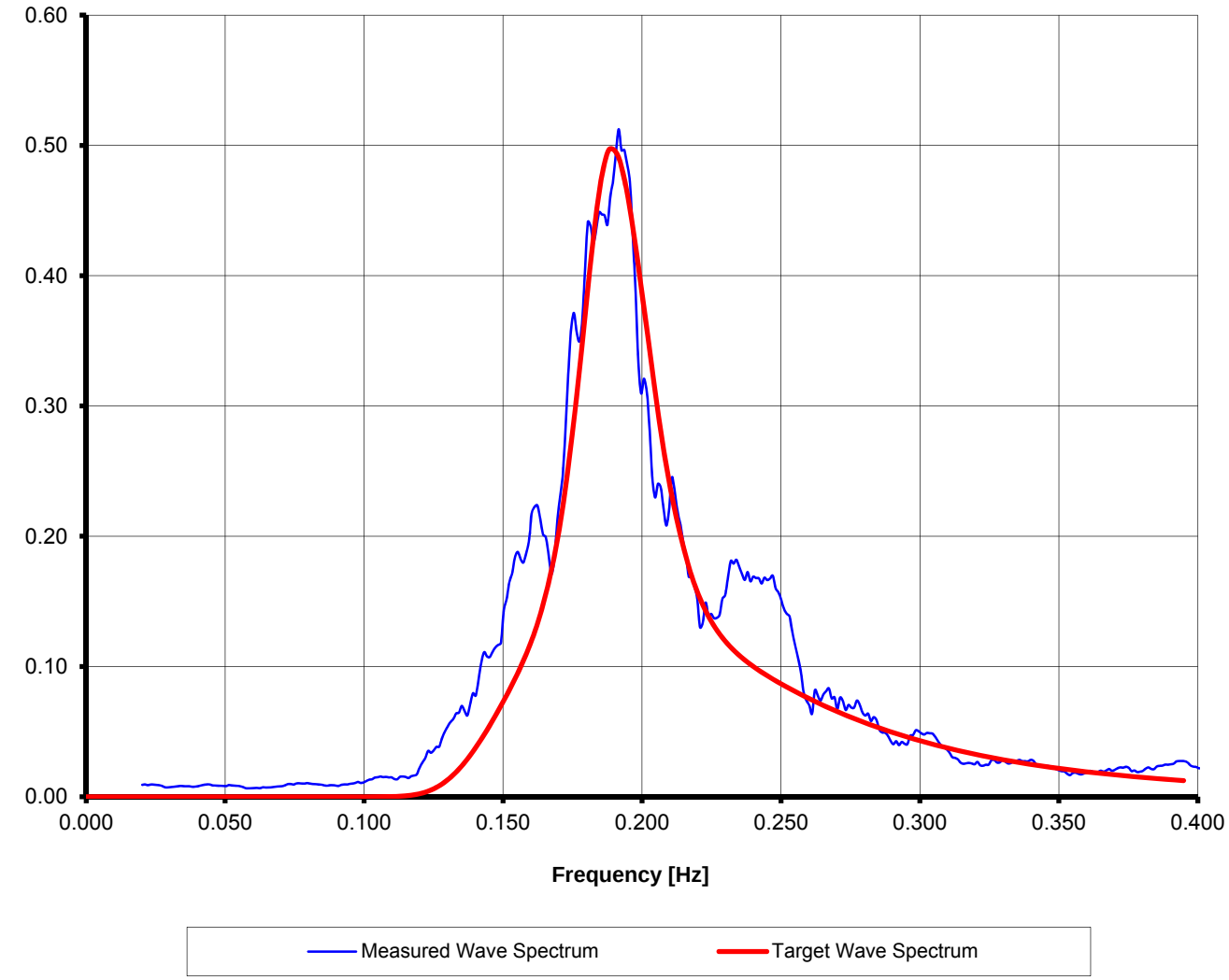
Model No.: 2461
Test No.: 29727-01 to 05
Project: EMSA 4
Damage : R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**1.750**	m
gamma	3.300	
T_P	5.292	s
T_Z	4.118	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29727-01 to 05
Project: EMSA 4
Damage : R7_P8-9.3.0
Wave Type: Jonswap, $\gamma = 3.3$
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
1.750	5.292	4.118	1.750 - 1.794	5.159 - 5.424	3.912 - 4.324

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29727-01	29727-01	1.7853	5.391	4.272						
-02	-02	1.7850	5.351	4.211						
-03	-03	1.7724	5.301	4.133						
-04	-04	1.7637	5.340	4.194						
-05	-05	1.7836	5.279	4.098						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29728-01 to 05, Hs = 2.00 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

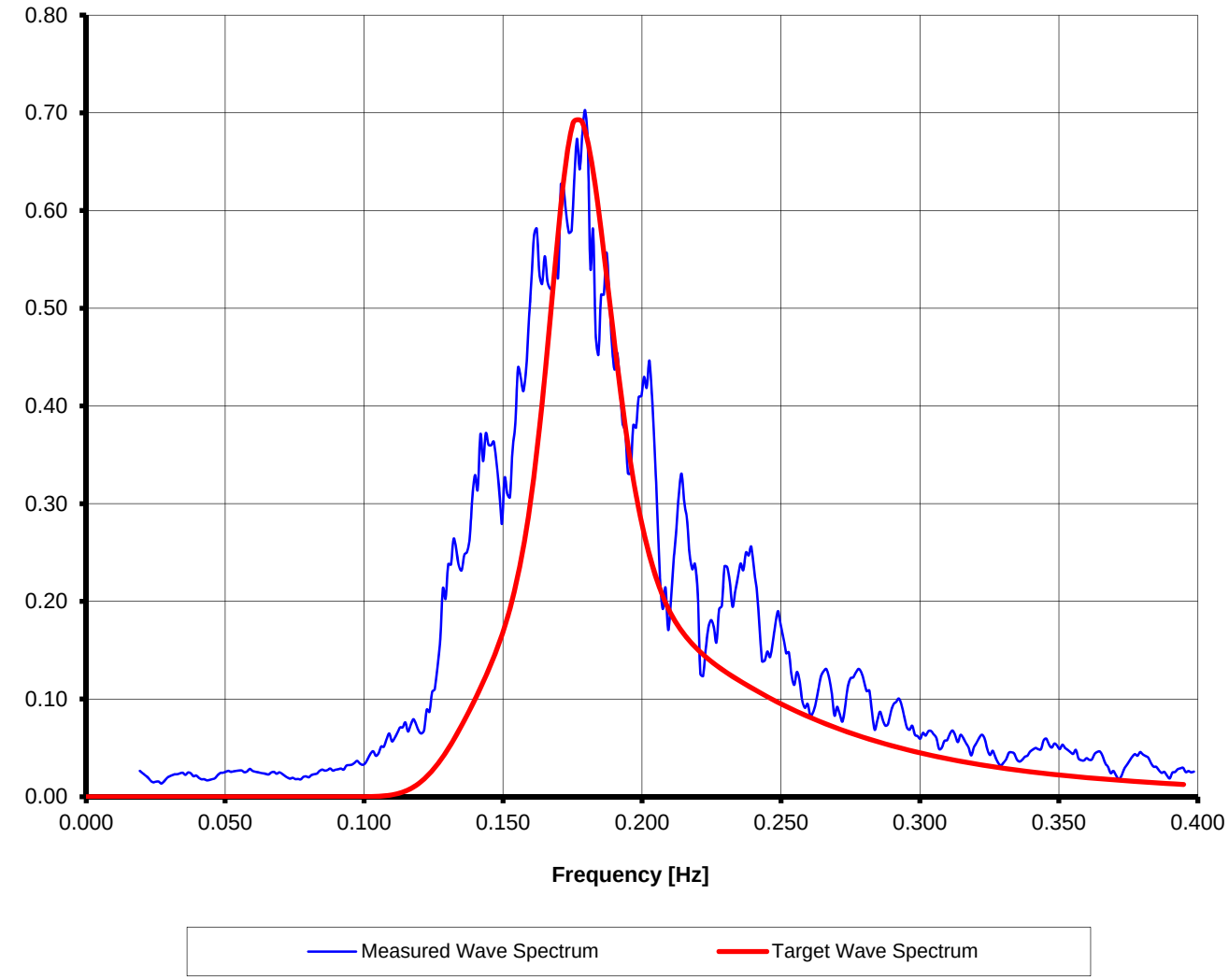
Model No.: 2461
Test No.: 29728-01 to 05
Project: EMSA 4
Damage : R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**2.000**	m
gamma	3.300	
T_P	5.657	s
T_Z	4.402	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29728-01 to 05
Project: EMSA 4
Damage : R7_P8-9.3.0
Wave Type: Jonswap, γ = 3.3
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
2.000	5.657	4.402	2.000 - 2.050	5.515 - 5.798	4.182 - 4.622

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29728-01	29728-01	2.0369	5.625	4.352						
-02	-02	2.0047	5.612	4.332						
-03	-03	2.0211	5.757	4.558						
-04	-04	2.0206	5.671	4.424						
-05	-05	2.0314	5.783	4.598						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29732-01 to 10, Hs = 2.25 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

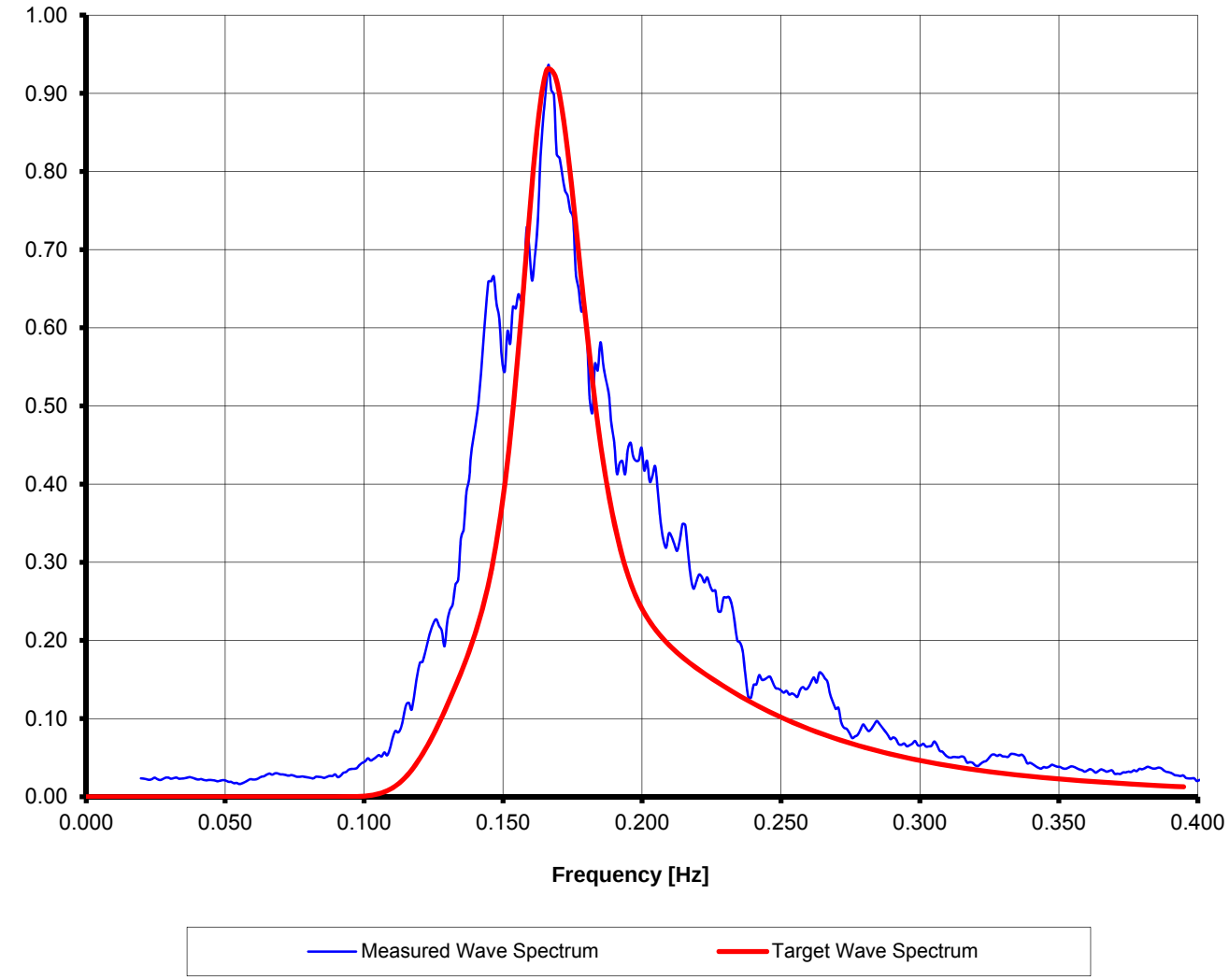
Model No.: 2461
Test No.: 29732-01 to 10
Project: EMSA 4
Damage : R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**2.250**	m
gamma	3.300	
T_P	6.000	s
T_Z	4.669	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29732-01 to 10
Project: EMSA 4
Damage : R7_P8-9.3.0
Wave Type: Jonswap, $\gamma = 3.3$
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
2.250	6.000	4.669	2.250 - 2.306	5.850 - 6.150	4.436 - 4.903

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29732-01	29732-01	2.2825	6.098	4.822						
-02	-02	2.3047	6.117	4.851						
-03	-03	2.3049	6.077	4.789						
-04	-04	2.2966	6.100	4.825						
-05	-05	2.2872	5.942	4.580						
-06	-06	2.2776	6.045	4.739						
-07	-07	2.2935	5.930	4.560						
-08	-08	2.2907	5.895	4.505						
-09	-09	2.2858	5.950	4.592						
-10	-10	2.2937	5.991	4.655						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29734-01 to 05, Hs = 2.50 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

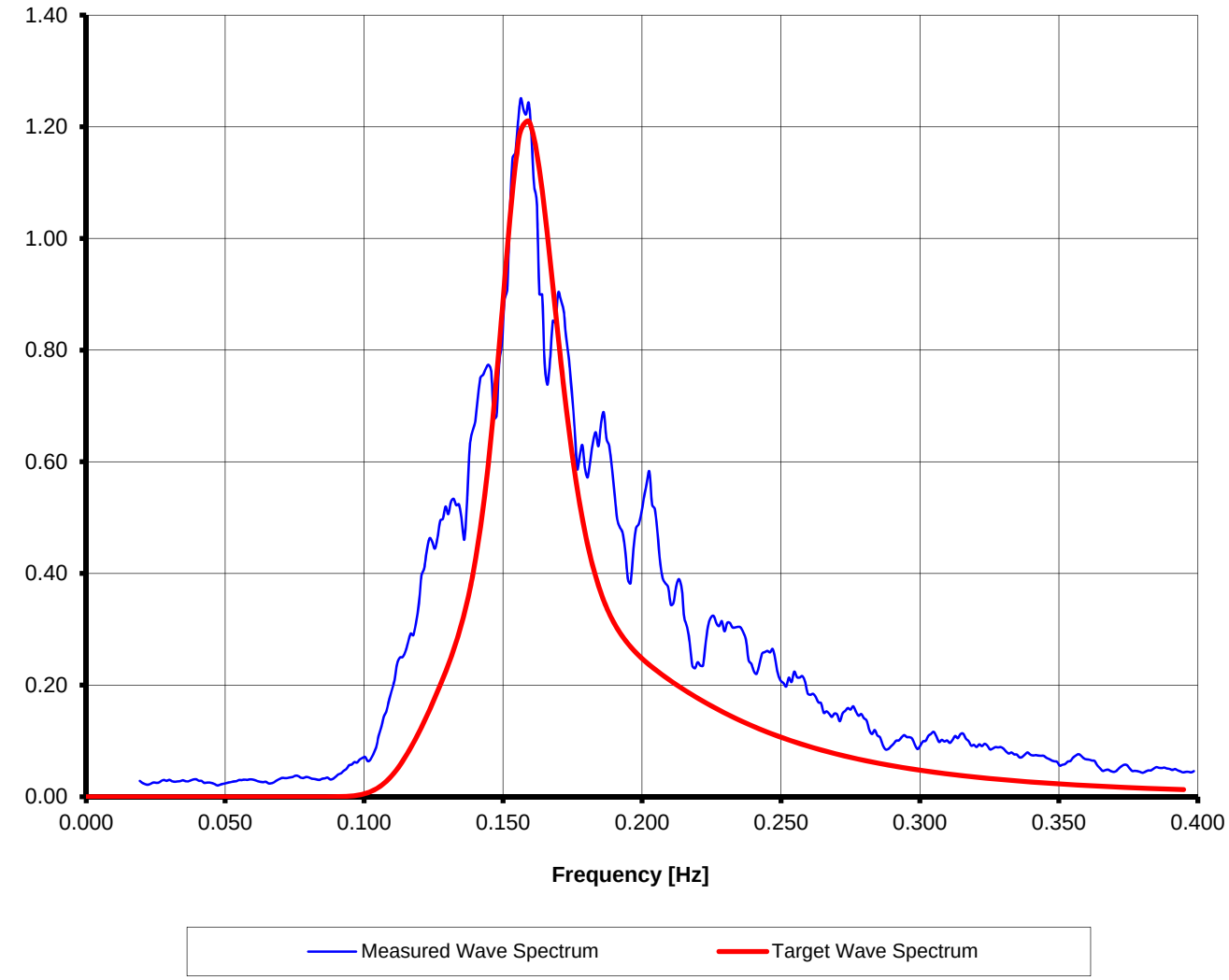
Model No.: 2461
Test No.: 29732-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**2.500**	m
gamma	3.300	
T_P	6.325	s
T_Z	4.922	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29732-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, γ = 3.3
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
2.500	6.325	4.922	2.500 - 2.563	6.166 - 6.483	4.676 - 5.168

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29734-01	29734-01	2.5535	6.425	5.078						
-02	-02	2.5522	6.473	5.153						
-03	-03	2.5381	6.363	4.982						
-04	-04	2.5405	6.407	5.050						
-05	-05	2.5484	6.386	5.017						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29735-01 to 10, Hs = 2.75 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

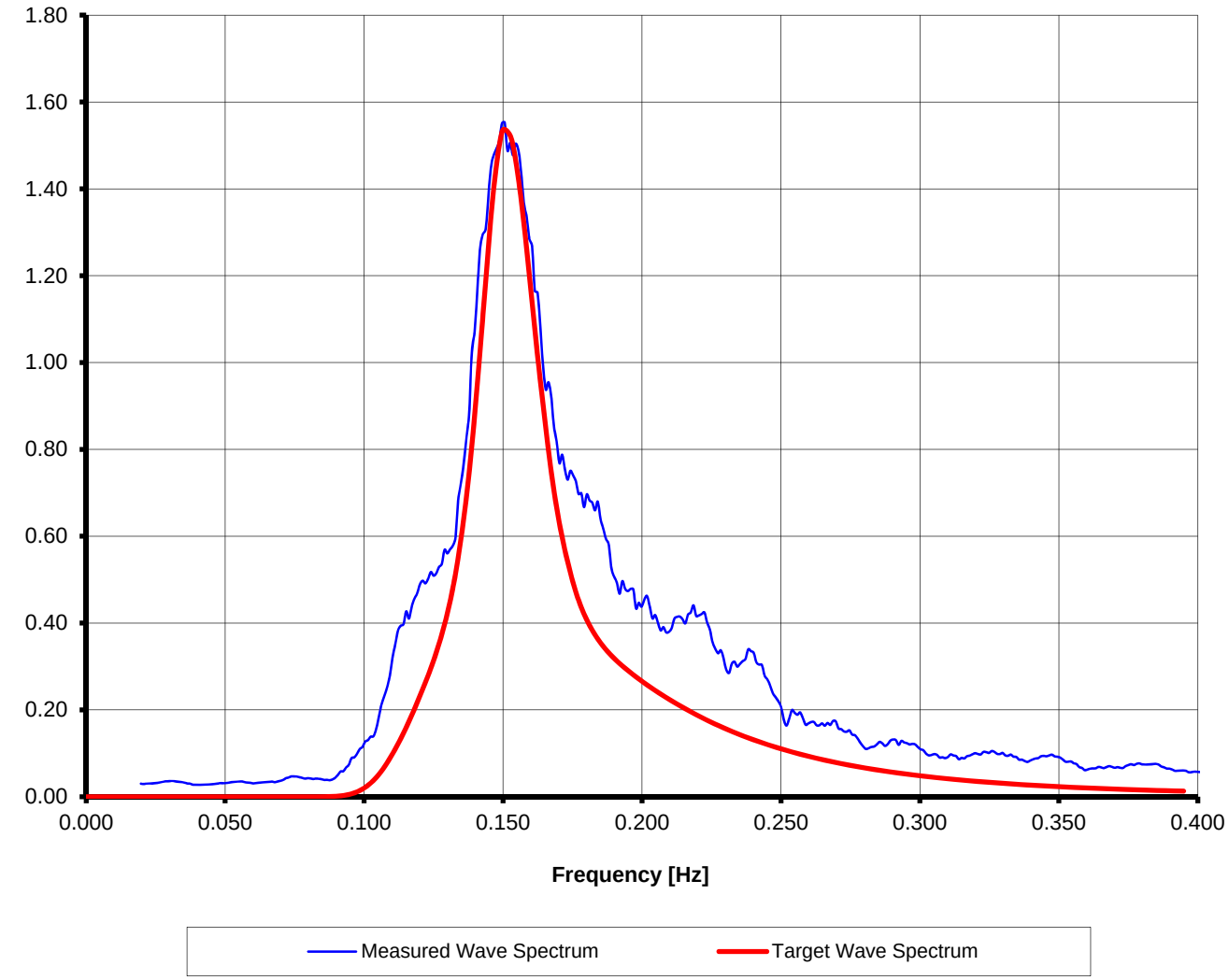
Model No.: 2461
Test No.: 29735-01 to 10
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**2.750**	m
gamma	3.300	
T_P	6.633	s
T_Z	5.162	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29735-01 to 10
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, γ = 3.3
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
2.750	6.633	5.162	2.750 - 2.819	6.467 - 6.799	4.904 - 5.420

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29735-01	29735-01	2.8579	6.742	5.331						
-02	-02	2.8095	6.512	4.974						
-03	-03	2.8166	6.749	5.341						
-04	-04	2.7858	6.677	5.230						
-05	-05	2.8051	6.753	5.348						
-06	-06	2.7976	6.506	4.964						
-07	-07	2.8076	6.691	5.252						
-08	-08	2.7971	6.706	5.275						
-09	-09	2.7954	6.484	4.930						
-10	-10	2.7893	6.611	5.127						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29736-01 to 05, Hs = 4.00 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

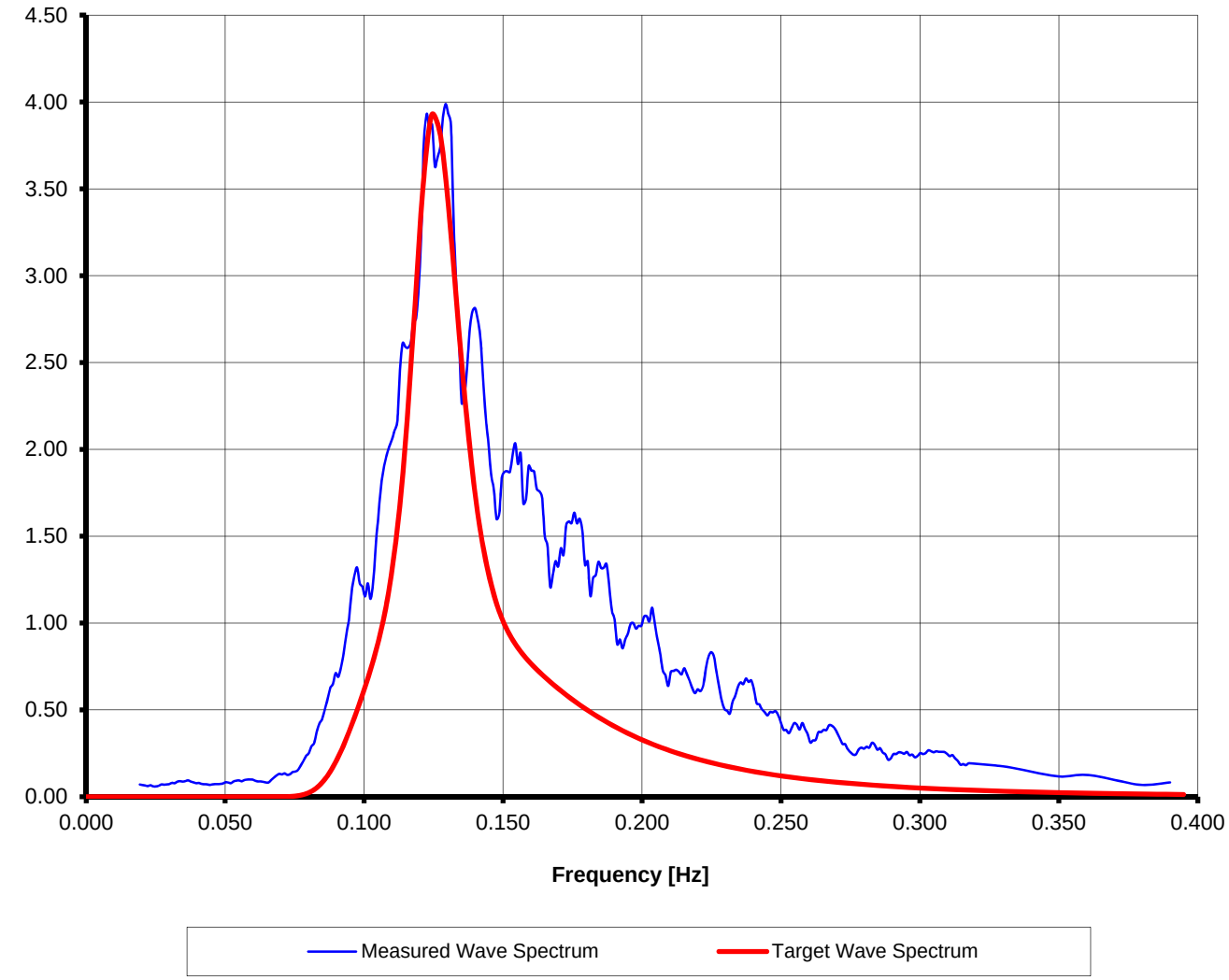
Model No.: 2461
Test No.: 29736-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**4.000**	m
gamma	3.300	
T_P	8.000	s
T_Z	6.226	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29736-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, γ = 3.3
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
4.000	8.000	6.226	4.000 - 4.100	7.800 - 8.200	5.914 - 6.537

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29736-01	29736-01	4.0612	8.156	6.468						
-02	-02	4.0641	7.898	6.068						
-03	-03	4.0520	7.819	5.944						
-04	-04	3.9953	7.947	6.143						
-05	-05	4.0317	8.019	6.255						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29737-01 to 05, Hs = 3.50 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

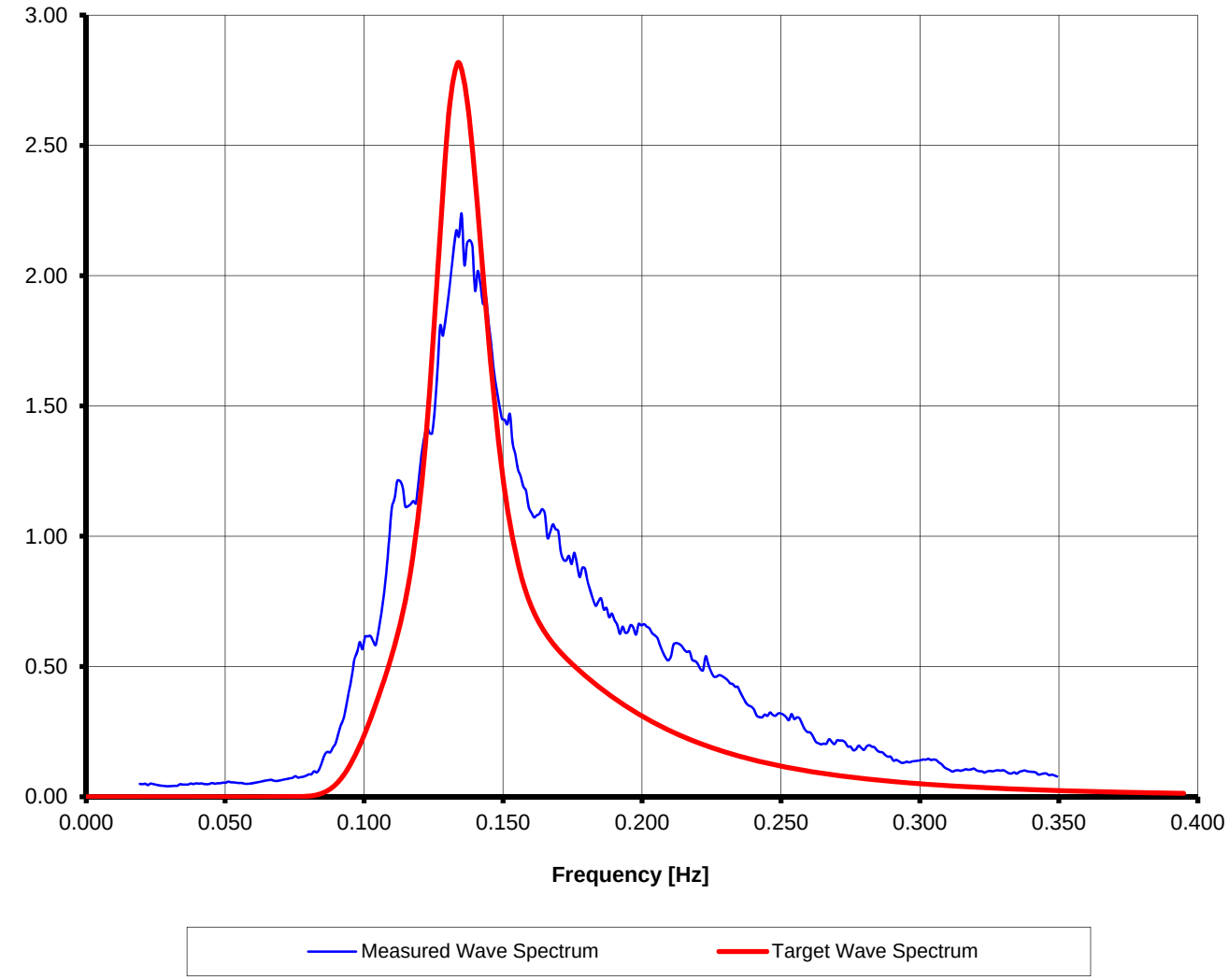
Model No.: 2461
Test No.: 29737-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**3.500**	m
gamma	3.300	
T_P	7.483	s
T_Z	5.824	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29737-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, γ = 3.3
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
3.500	7.483	5.824	3.500 - 3.588	7.296 - 7.670	5.532 - 6.115

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29719-01	29700-01	3.5192	7.364	5.839						
-02	-02	3.5297	7.333	5.820						
-03	-03	3.5325	7.487	5.824						
-04	-04	3.5160	7.426	5.866						
-05	-05	3.5200	7.443	5.736						
-06	-06	3.5244	7.510	5.826						
-07	-07	3.5362	7.636	5.733						
-08	-08	3.5388	7.631	5.734						
-09	-09	3.5603	7.385	5.824						
-10	-10	3.5389	7.653	5.662						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29738-01 to 10, Hs = 3.00 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

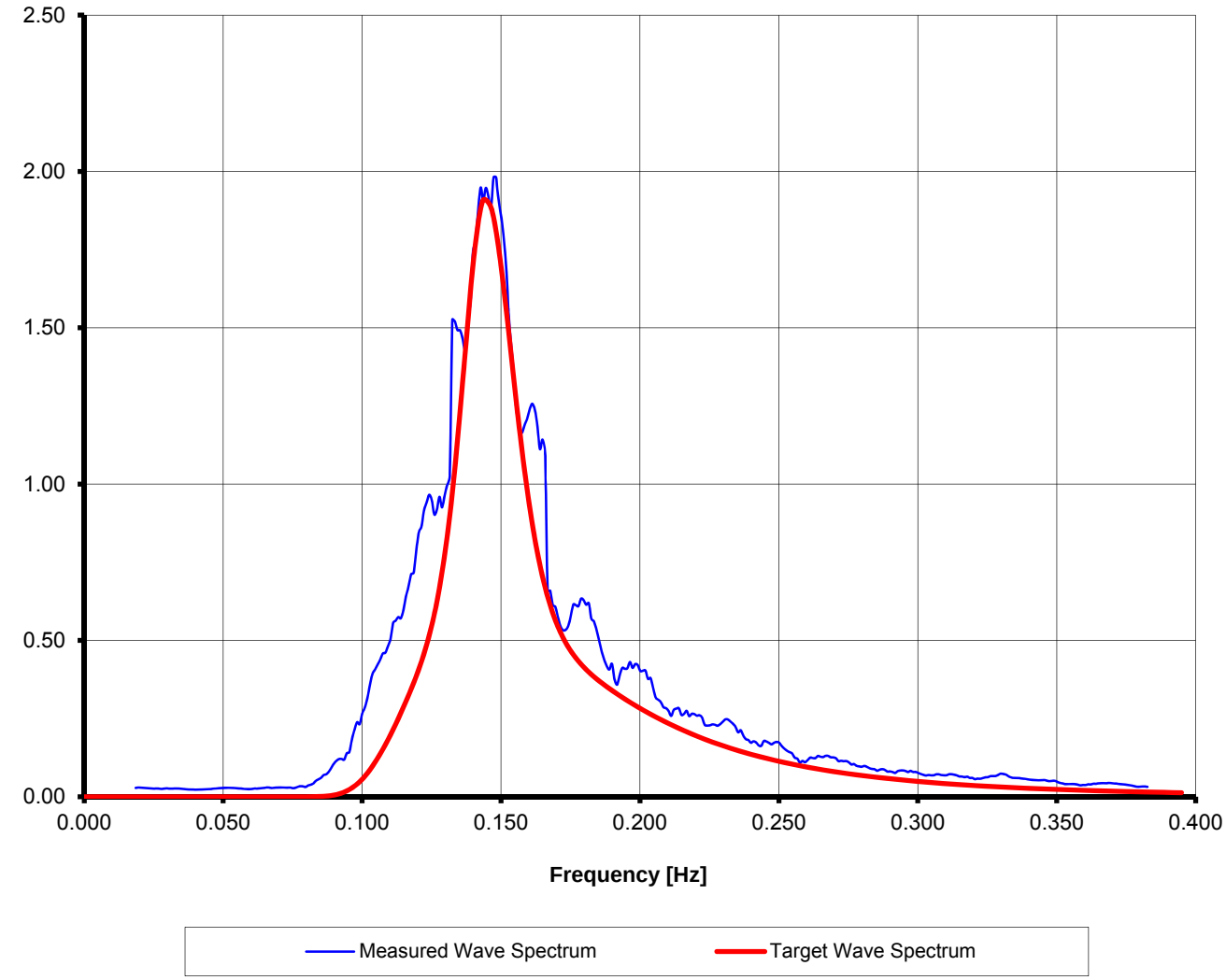
Model No.: 2461
Test No.: 29738-01 to 10
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**3.000**	m
gamma	3.300	
T_P	6.928	s
T_Z	5.392	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29738-01 to 10
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, $\gamma = 3.3$
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
3.000	6.928	5.392	3.000 - 3.075	6.755 - 7.101	5.122 - 5.661

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29739-01	29739-01	3.0326	7.000	5.503						
-02	-02	3.0234	7.007	5.515						
-03	-03	3.0318	6.986	5.481						
-04	-04	3.0441	6.859	5.284						
-05	-05	3.0446	6.827	5.235						
-06	-06	3.0502	6.955	5.433						
-07	-07	3.0488	6.963	5.445						
-08	-08	3.0353	7.044	5.572						
-09	-09	3.0384	7.083	5.633						
-10	-10	3.0482	7.030	5.550						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29739-01 to 23, Hs = 2.90 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

Model No.: 2461

Test No.: 29739-01 to 23

Project: EMSA 4

Damage 1: R7_P8-9.3.0

Wave Type: Jonswap

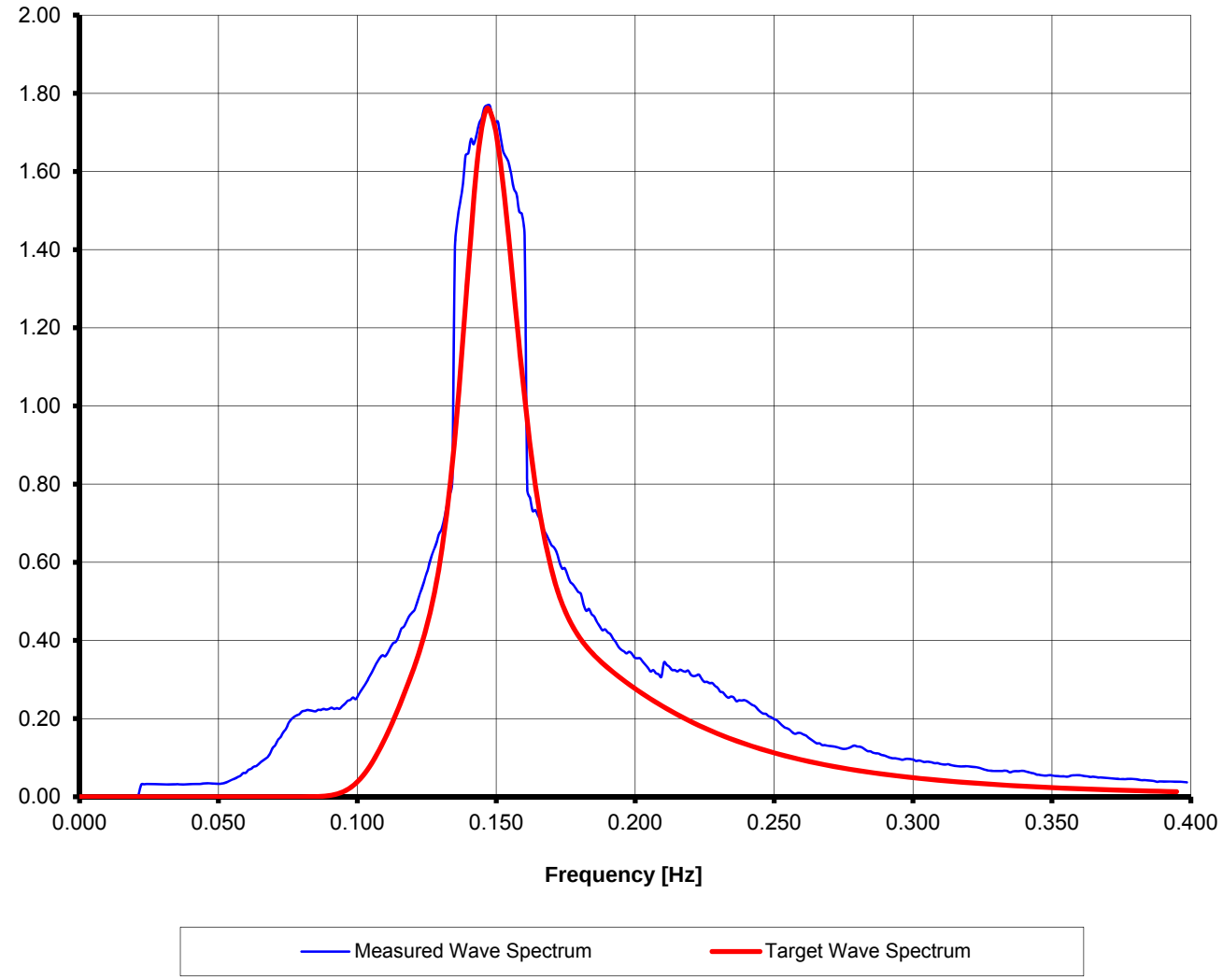
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**2.900**	m
gamma	3.300	
T_P	6.812	s
T_Z	5.301	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29739-01 to 23
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, $\gamma = 3.3$
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
2.900	6.812	5.301	2.900 - 2.973	6.641 - 6.982	5.036 - 5.566

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29739-01	29739-01	2.9375	6.673	5.085						
-02	-02	2.9314	6.898	5.435						
-03	-03	2.9374	6.645	5.042						
-04	-04	2.9366	6.665	5.072						
-05	-05	2.9292	6.899	5.437						
-06	-06	2.9412	6.679	5.094						
-07	-07	2.9429	6.770	5.236						
-08	-08	2.9376	6.654	5.056						
-09	-09	2.9575	6.847	5.356						
-10	-10	2.9484	6.938	5.497						

WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29739-01 to 23
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, γ = 3.3
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
2.900	6.812	5.301	2.900 - 2.973	6.641 - 6.982	5.036 - 5.566

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29739-11	29739-11	2.9348	6.664	5.072						
-12	-12	2.9441	6.774	5.242						
-13	-13	2.9339	6.856	5.370						
-14	-14	2.9438	6.901	5.440						
-15	-15	2.9514	6.876	5.401						
-16	-16	2.9472	6.969	5.545						
-17	-17	2.9303	6.897	5.434						
-18	-18	2.9290	6.958	5.529						
-19	-19	2.9393	6.962	5.535						
-20	-20	2.9297	6.844	5.351						

WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29739-01 to 23
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, $\gamma = 3.3$
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
2.900	6.812	5.301	2.900 - 2.973	6.641 - 6.982	5.036 - 5.566

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29739-21	29739-21	2.9558	6.720	5.159						
-22	-22	2.9472	6.688	5.109						
-23	-23	2.9505	6.961	5.533						

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29740-01 to 05, Hs = 3.00 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

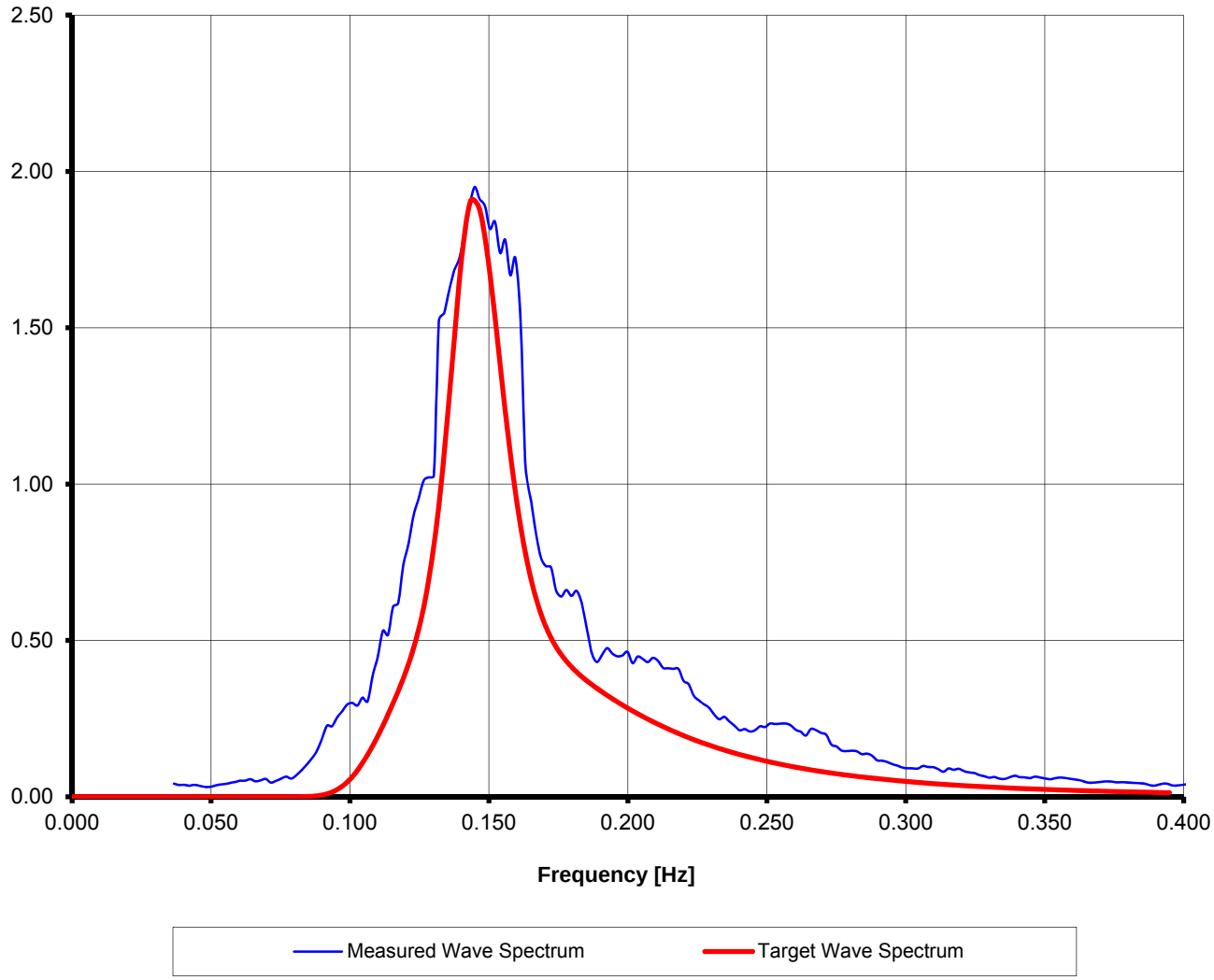
Model No.: 2461
Test No.: 29740-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	3.000	m
gamma	3.300	
T_P	6.928	s
T_Z	5.392	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29740-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, $\gamma = 3.3$
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
3.000	6.928	5.392	3.000 - 3.075	6.755 - 7.101	5.122 - 5.661

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29740-01	29740-01	3.0361	7.066	5.606						
-02	-02	3.0359	6.762	5.132						
-03	-03	3.0353	7.039	5.564						
-04	-04	3.0325	6.875	5.309						
-05	-05	3.0429	6.864	5.291						
-06	-06									
-07	-07									
-08	-08									
-09	-09									
-10	-10									

Spectral Characteristics of the Target and Measured Waves

Model No. 2461

Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Test No. 29741-01 to 05, Hs = 2.75 m

WAVE MEASUREMENT DURING THE TESTS
Location 1 (Arc 29) Wave Probe-1 DHI-834

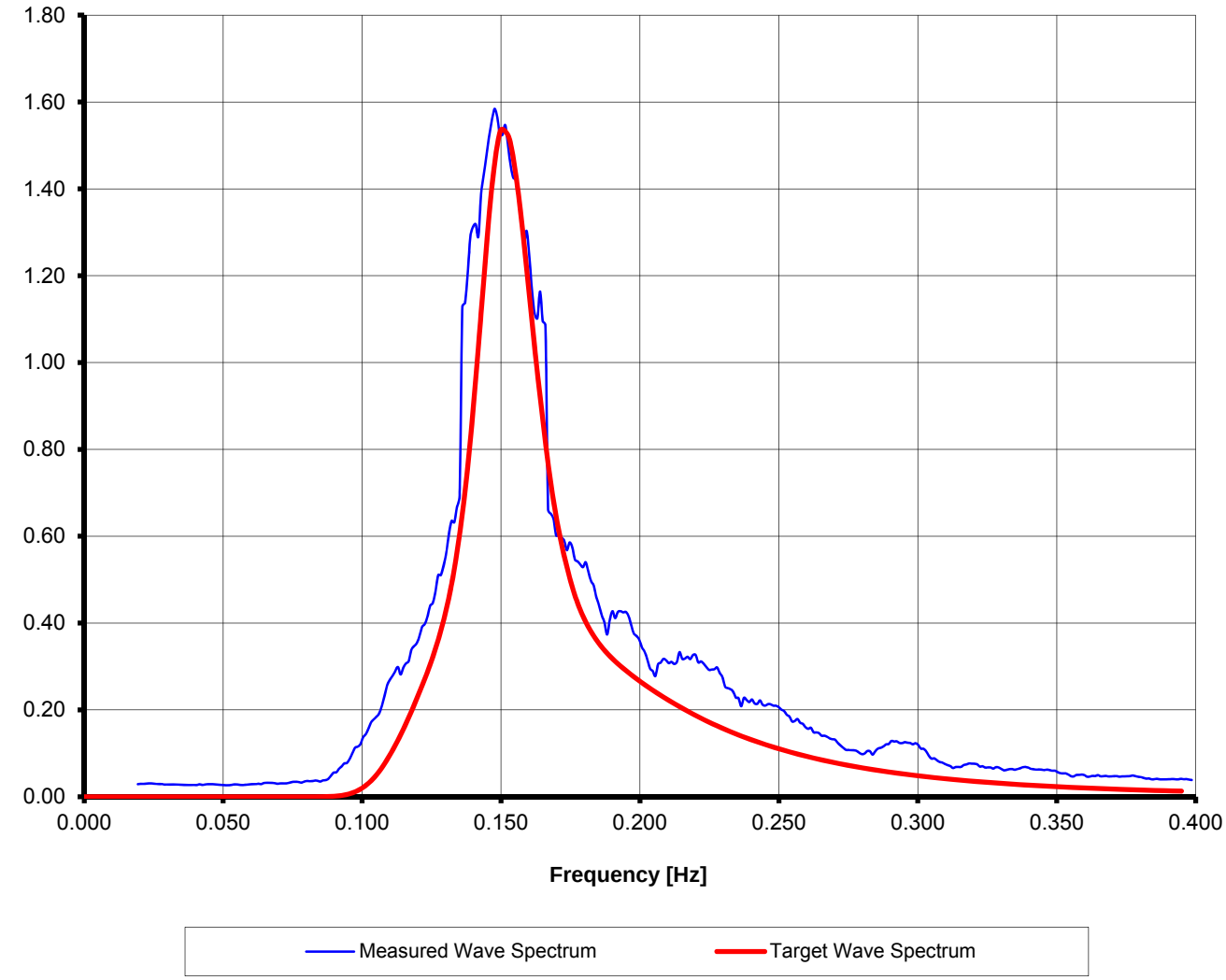
Model No.: 2461
Test No.: 29741-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap
Scale: 40.00

Short Waves

Parameter	Value	Units
H_S	**2.750**	m
gamma	3.300	
T_P	6.633	s
T_Z	5.162	s

Spectral Characteristics

Spectral Density S(ω) [m².s]



WAVE MEASUREMENT DURING THE TESTS (FIXED WAVE PROPE)

Model No.: 2461
Test No.: 29741-01 to 05
Project: EMSA 4
Damage 1: R7_P8-9.3.0
Wave Type: Jonswap, $\gamma = 3.3$
Scale: 40.00

Target of the Waves			Variation of the Waves		
H_S	T_P	T_Z	H_S	T_P	T_Z
[m]	[s]	[s]	[m]	[s]	[s]
2.750	6.633	5.162	2.750 - 2.819	6.467 - 6.799	4.904 - 5.420

		Location 1 (Wave Probe-1 DHI-834)			Location 2 (Wave Probe-2 DHI-835)			Location 3 (Wave Probe-3 DHI-836)		
No. of the Test	Wave No.	Hs	Tp	Tz	Hs	Tp	Tz	Hs	Tp	Tz
[ ]		[m]	[s]	[s]	[m]	[s]	[s]	[m]	[s]	[s]
29741-01	29741-01	2.7812	6.666	5.213						
-02	-02	2.7870	6.536	5.011						
-03	-03	2.7856	6.558	5.045						
-04	-04	2.7786	6.775	5.383						
-05	-05	2.7842	6.545	5.024						
-06	-06									
-07	-07									
-08	-08									
-09	-09									
-10	-10									

APPENDIX E

TIME HISTORIES OF THE EXPERIMENTS

WAVE AND ROLL TIME HISTORIES

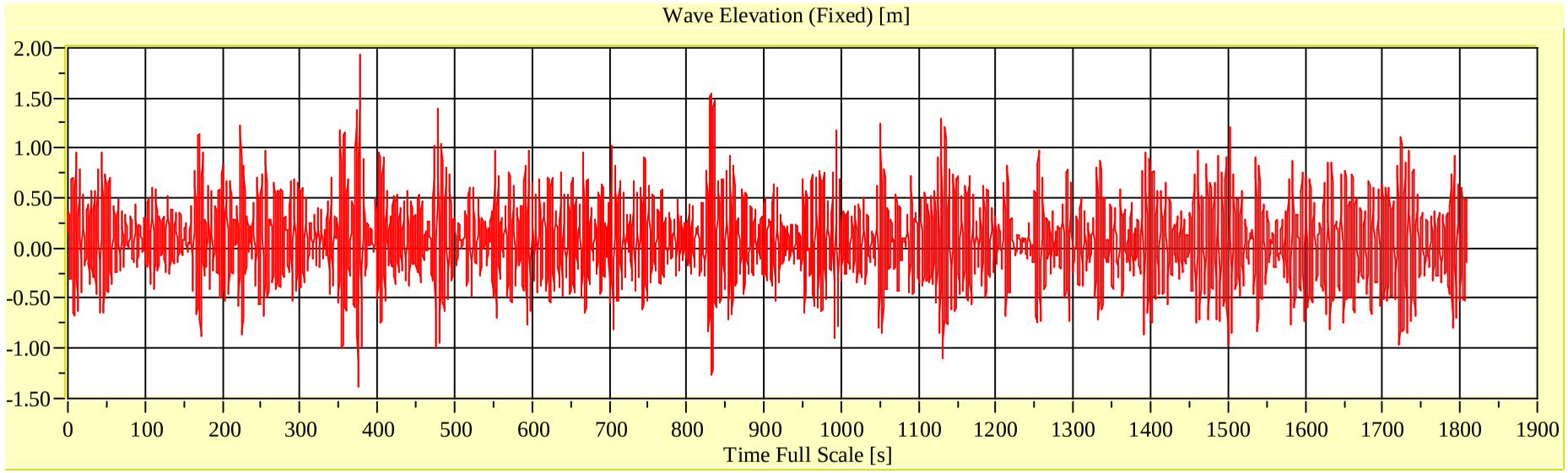
Model No. 2461

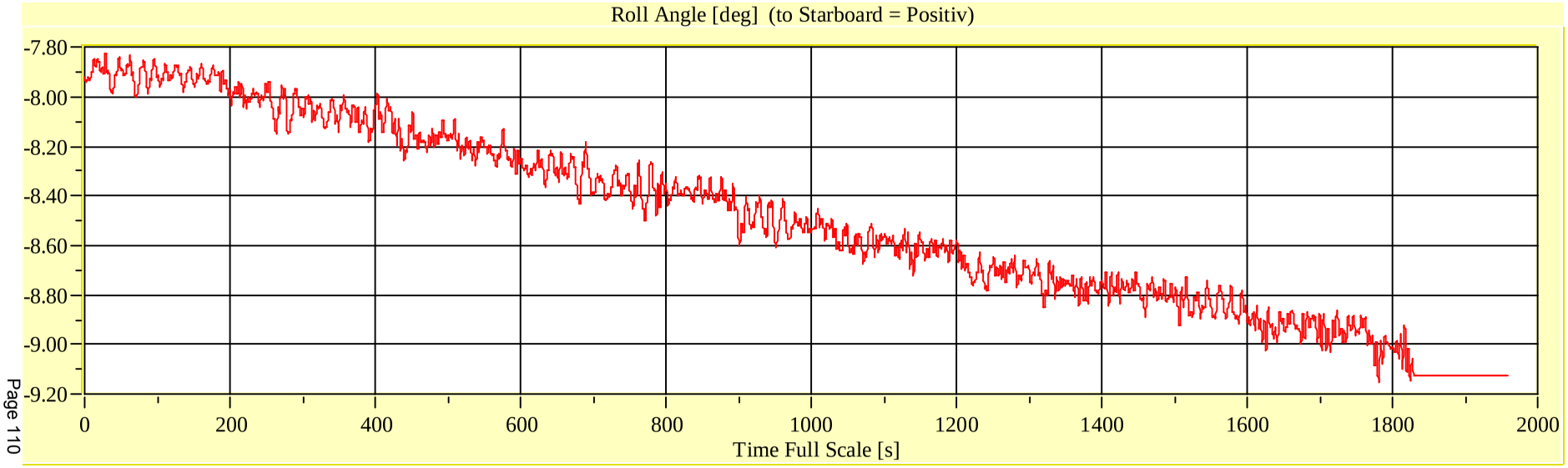
Project: “EMSA 4”

Damage Case-1 R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-01	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

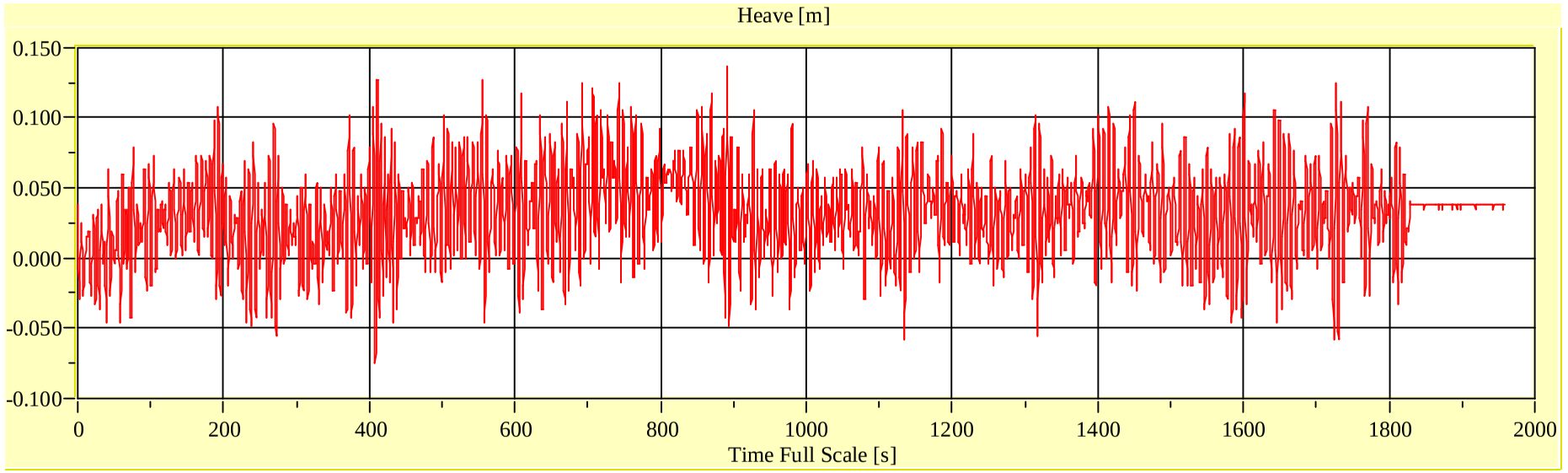


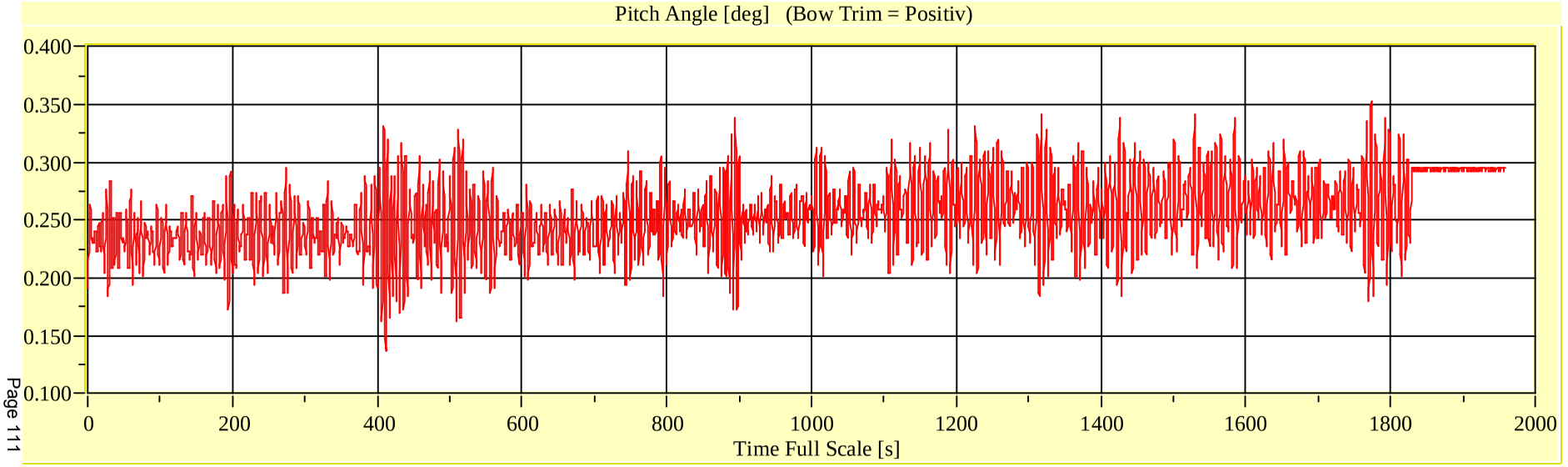


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-01	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

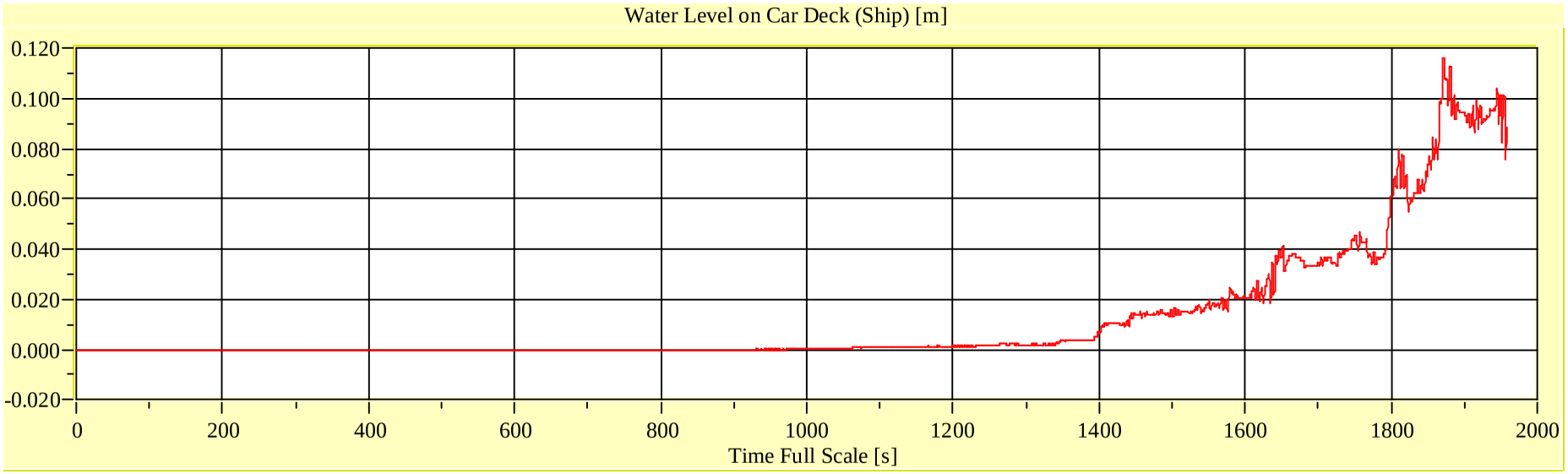


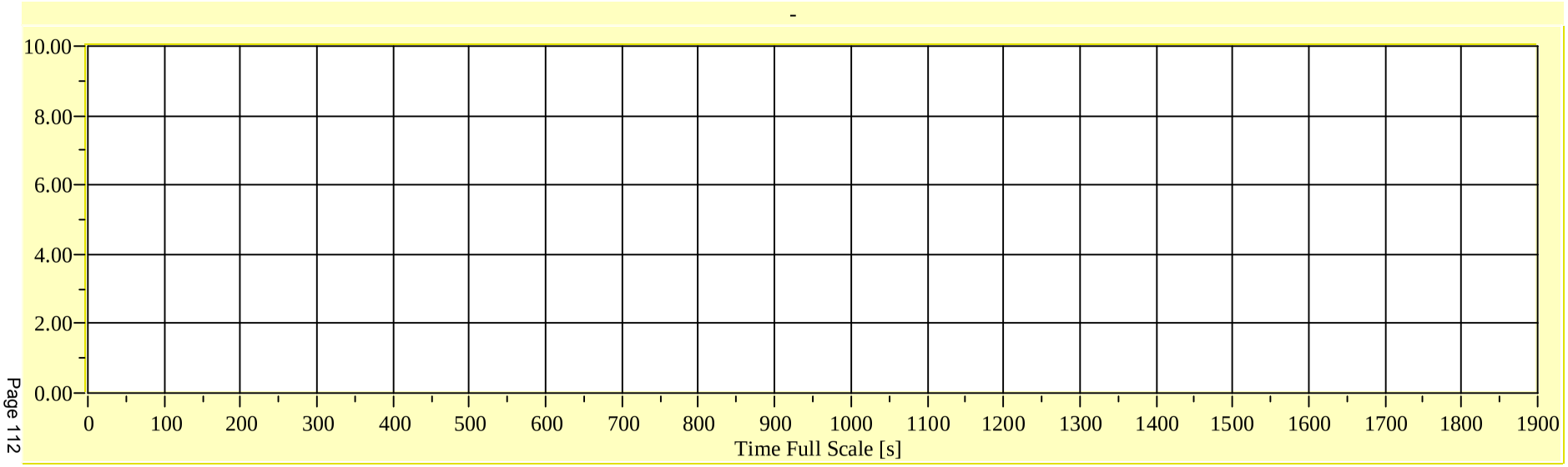


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-01	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

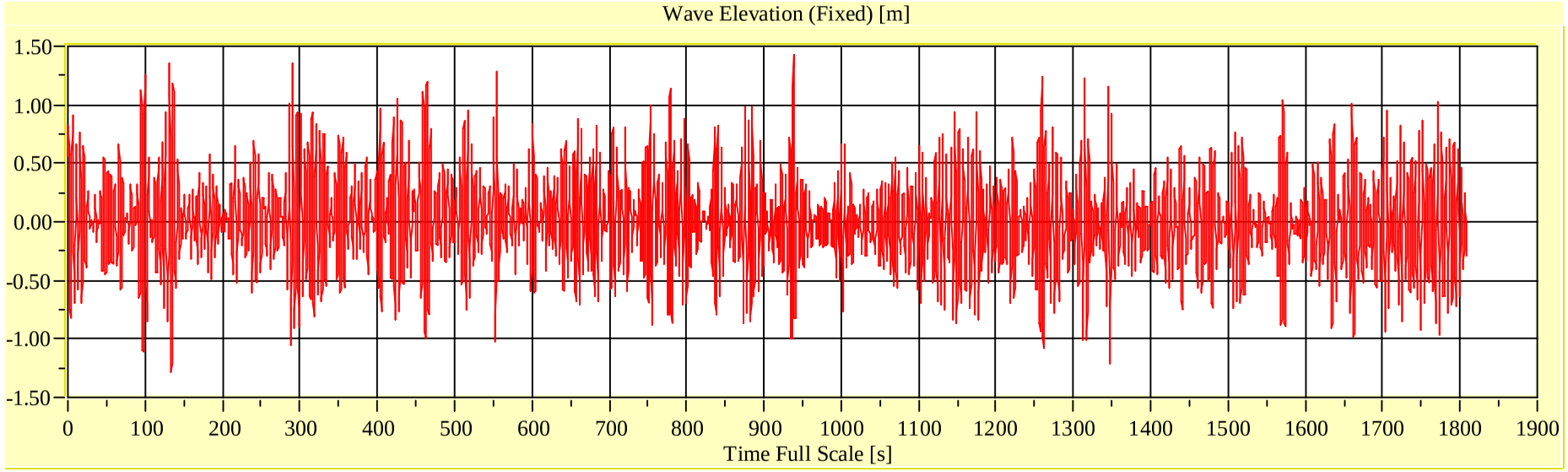


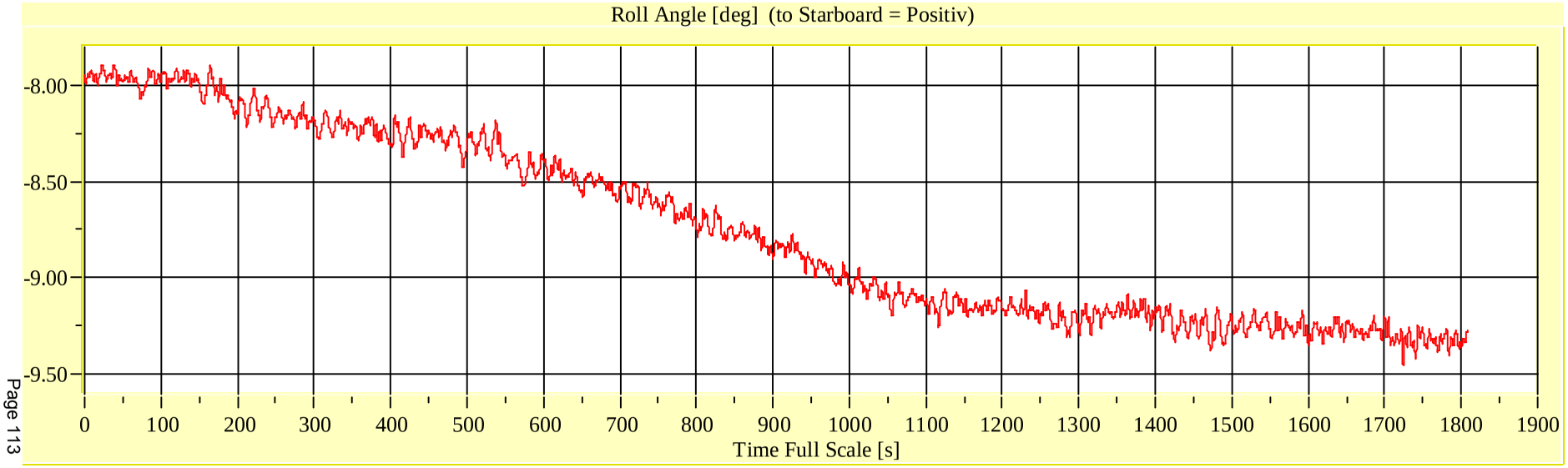


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-02	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

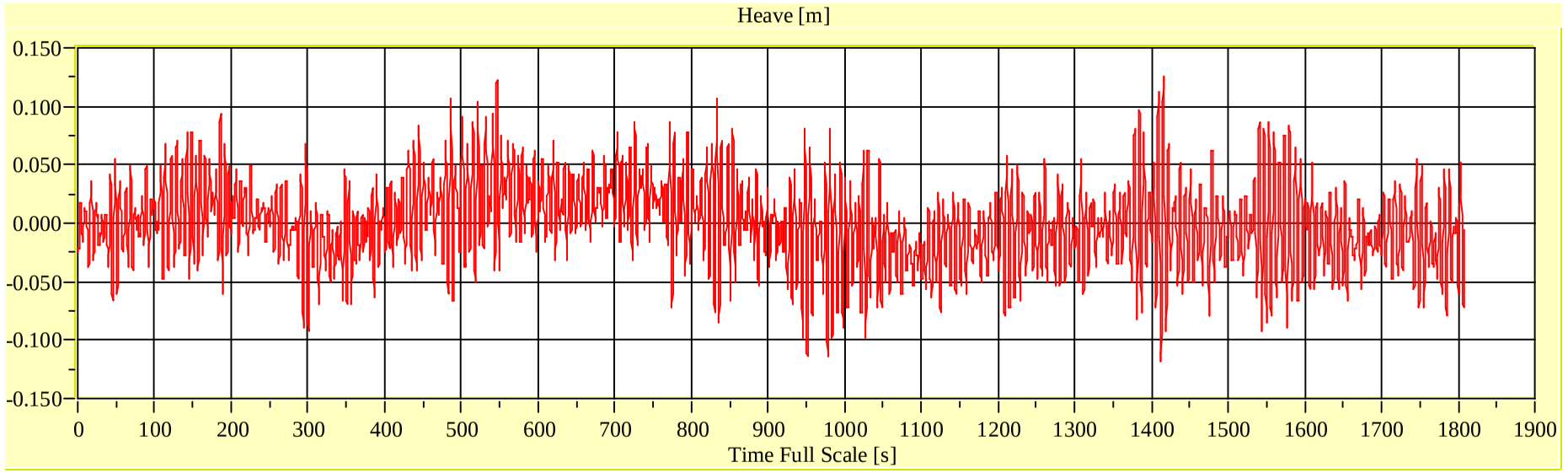


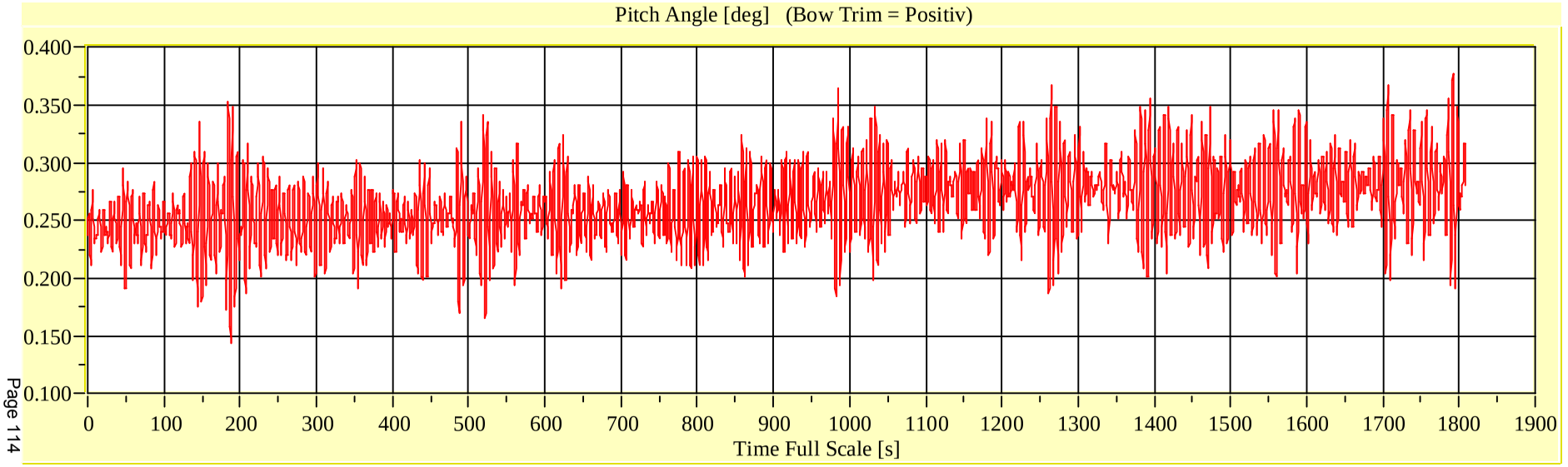


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-02	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

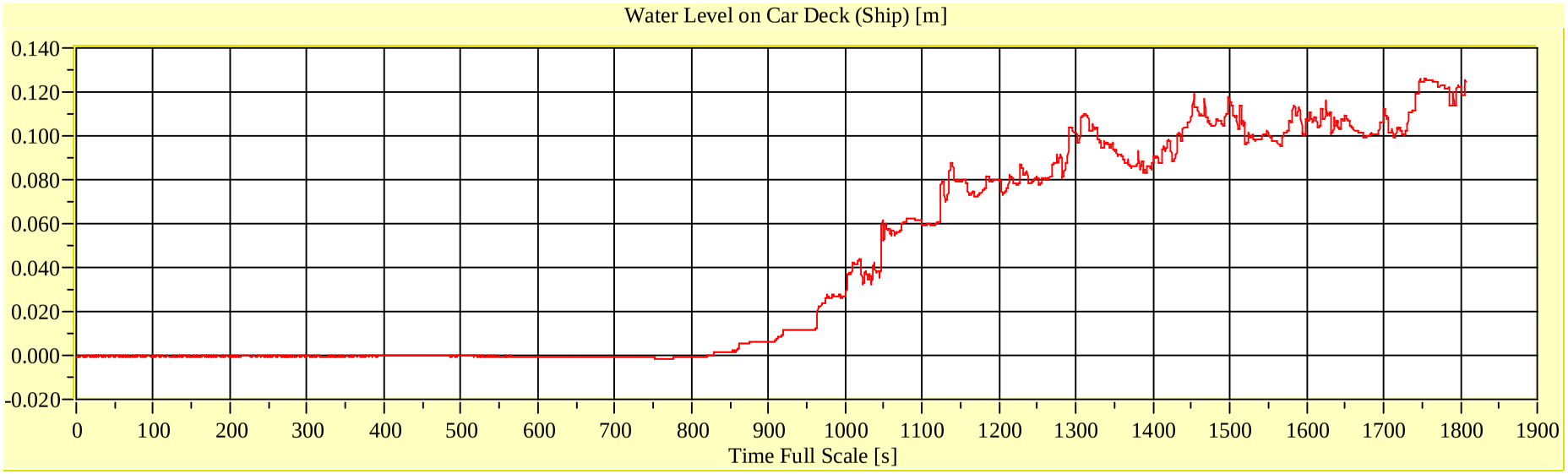


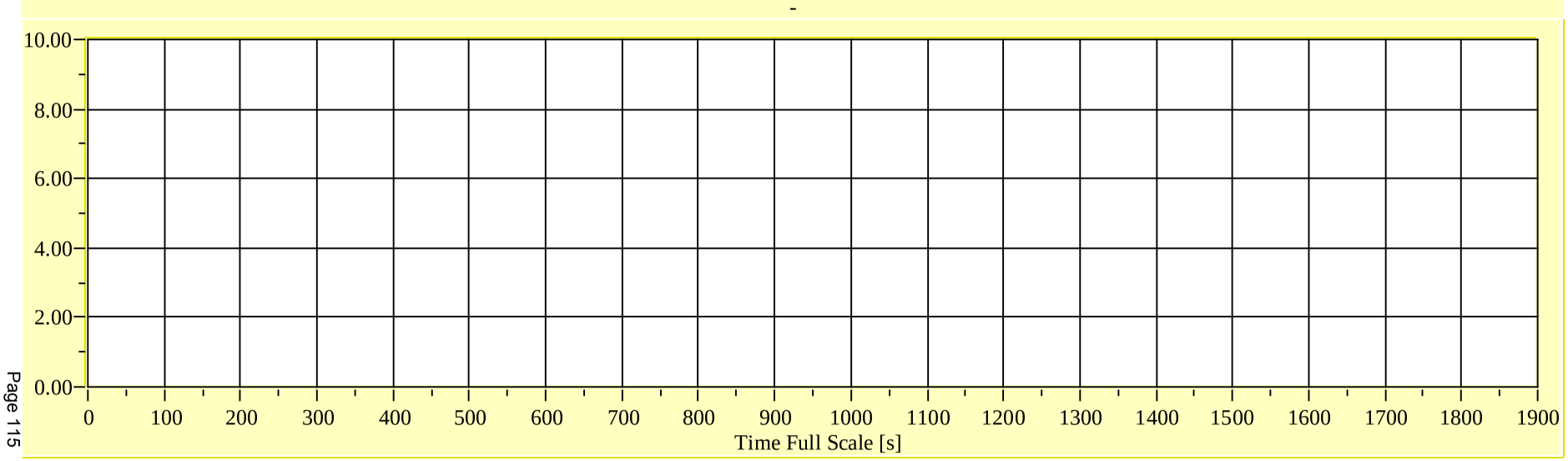


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-02	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

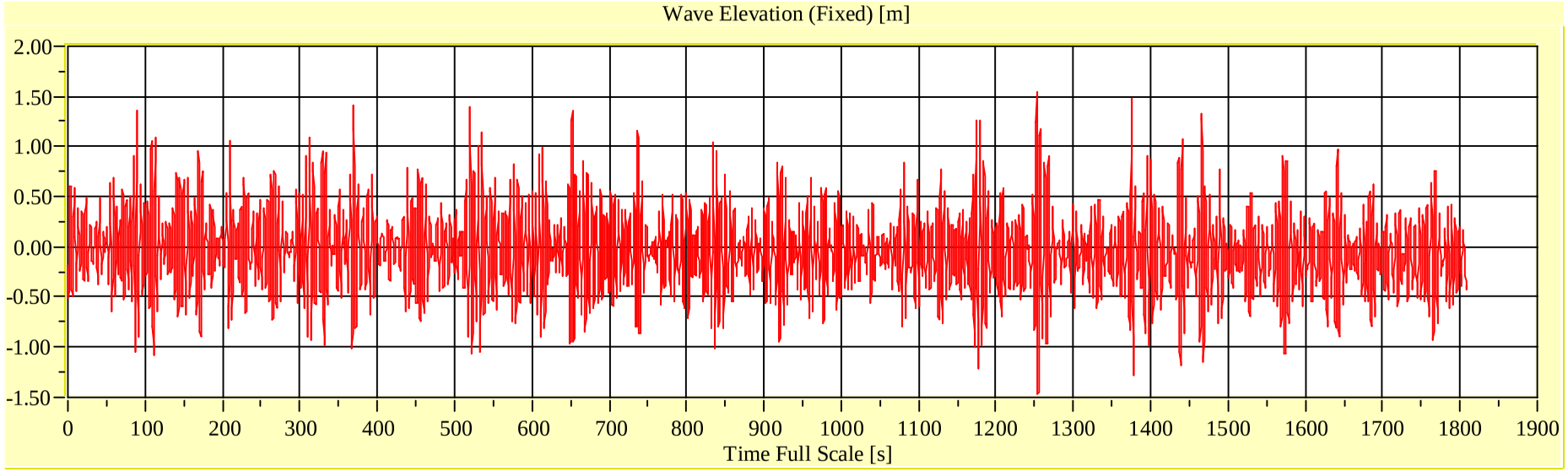


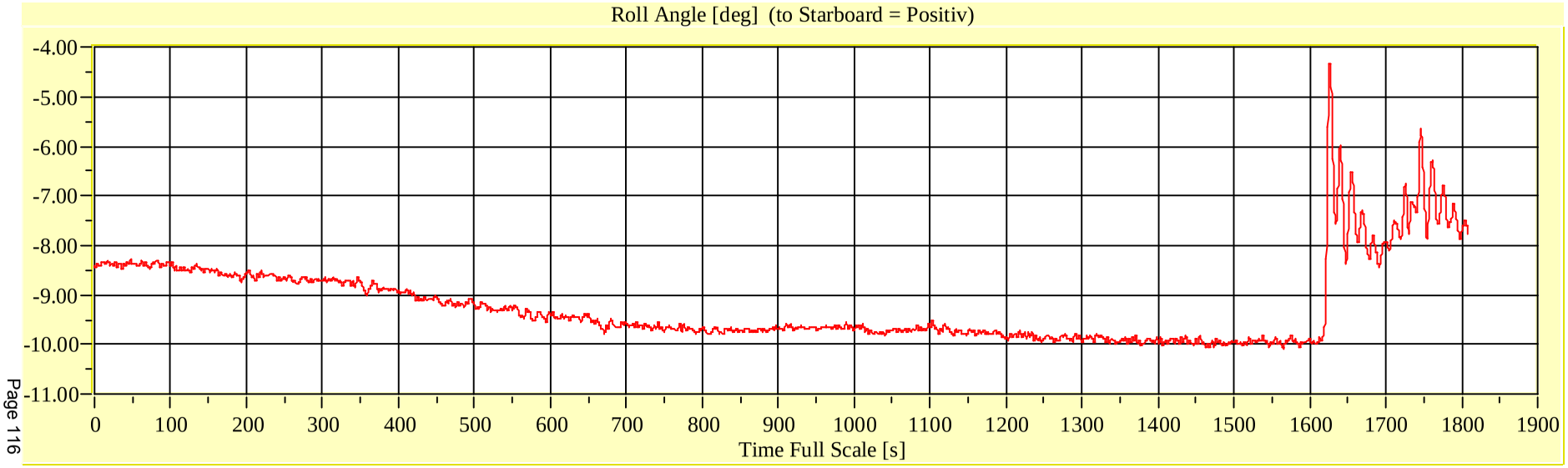


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-03	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

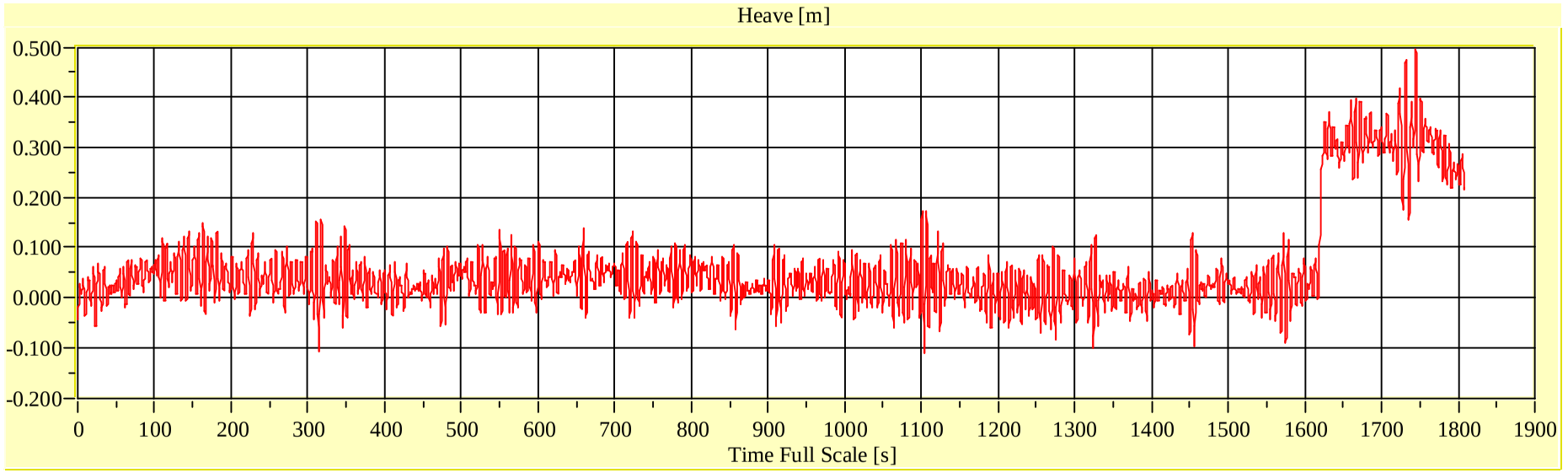


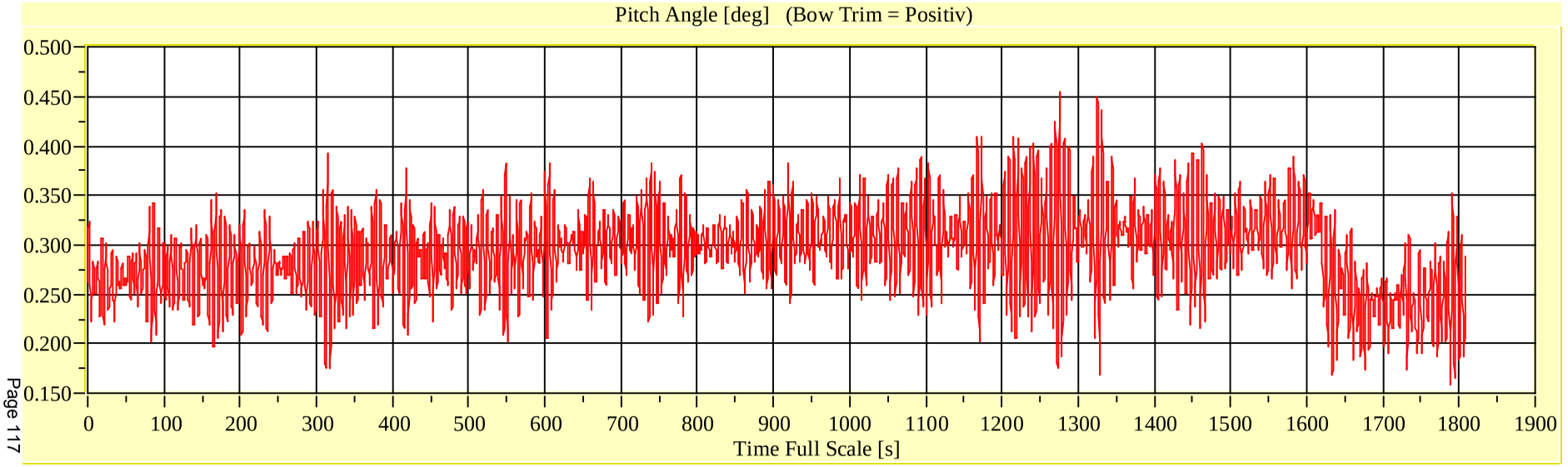


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-03	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

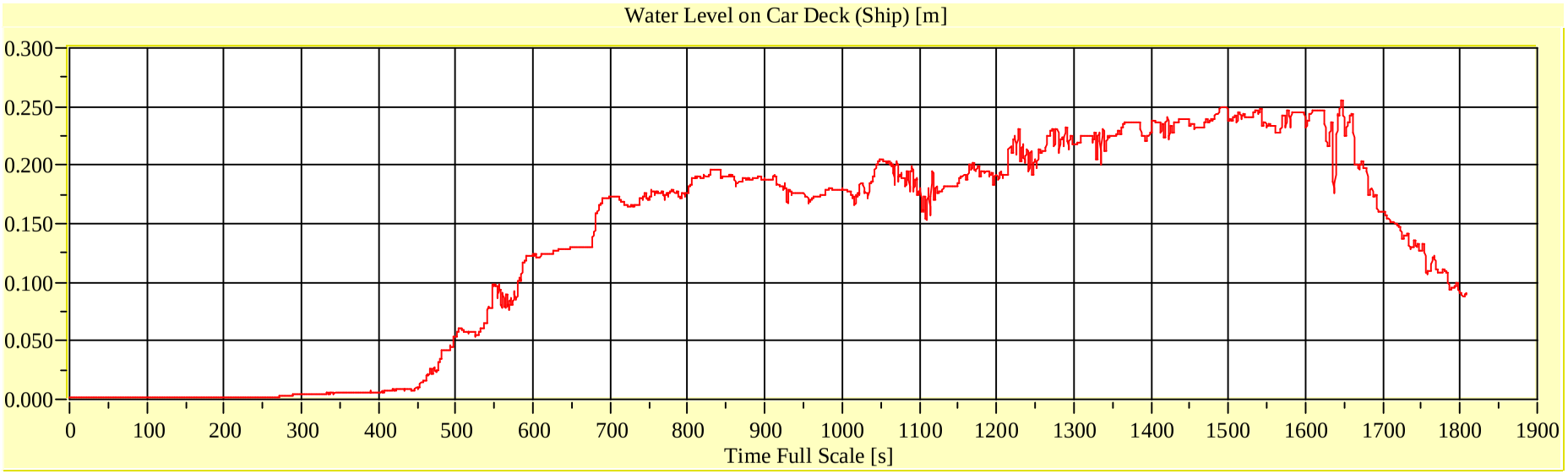


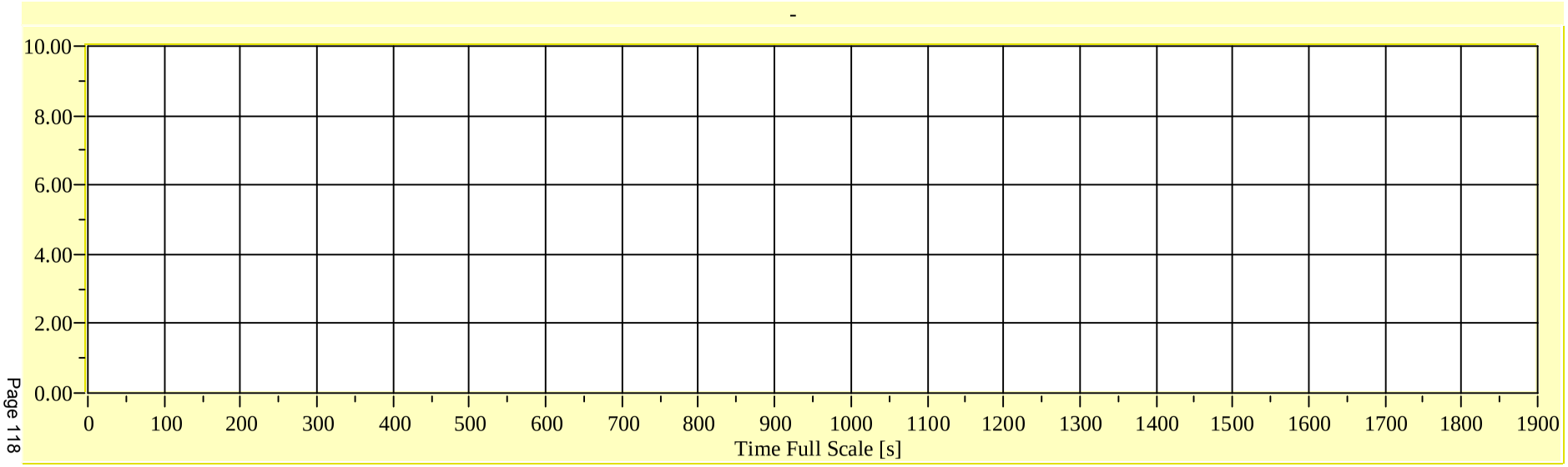


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-03	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

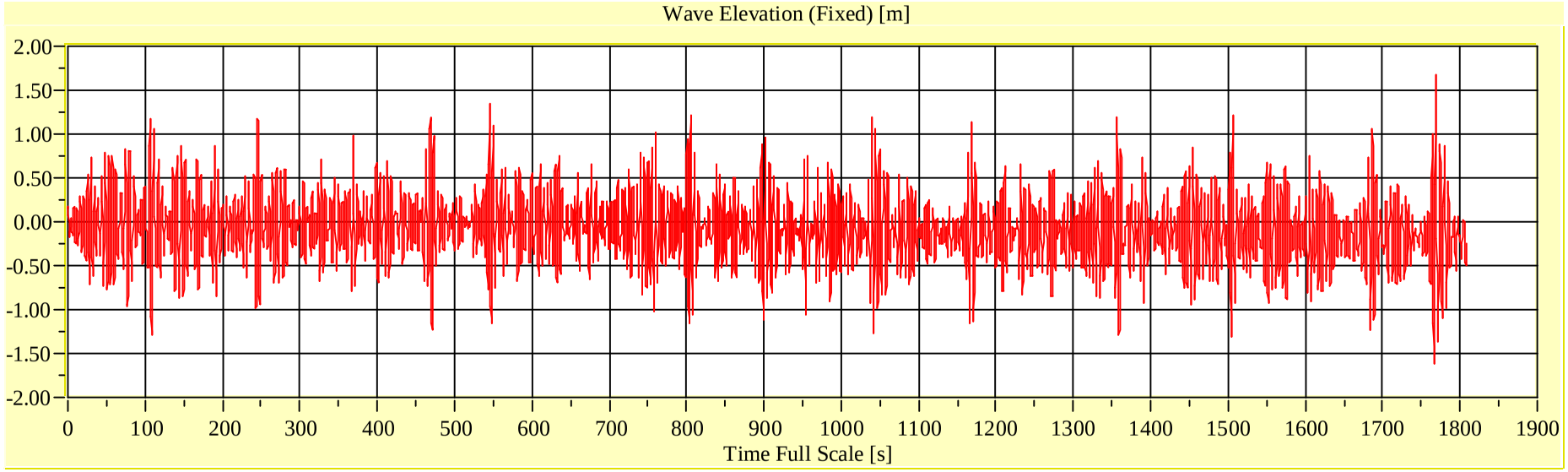


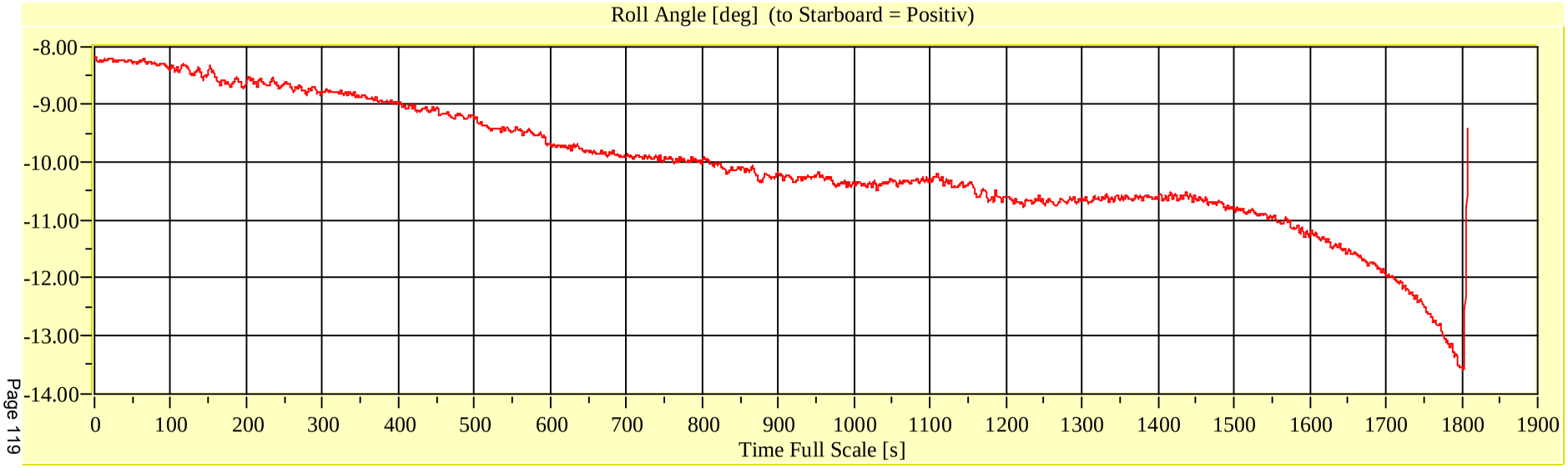


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-04	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3



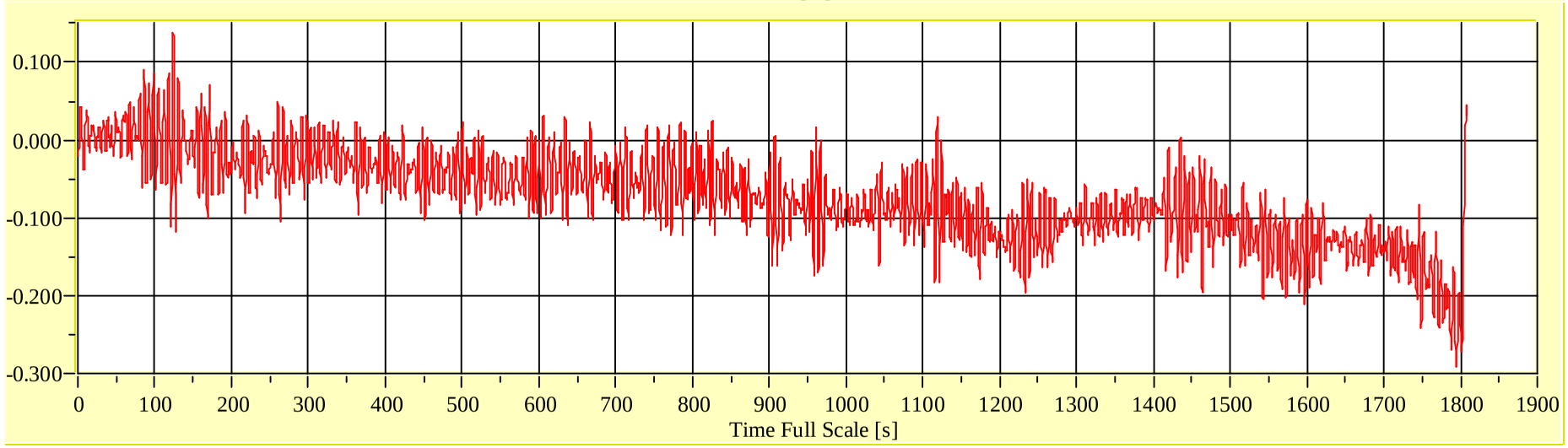


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

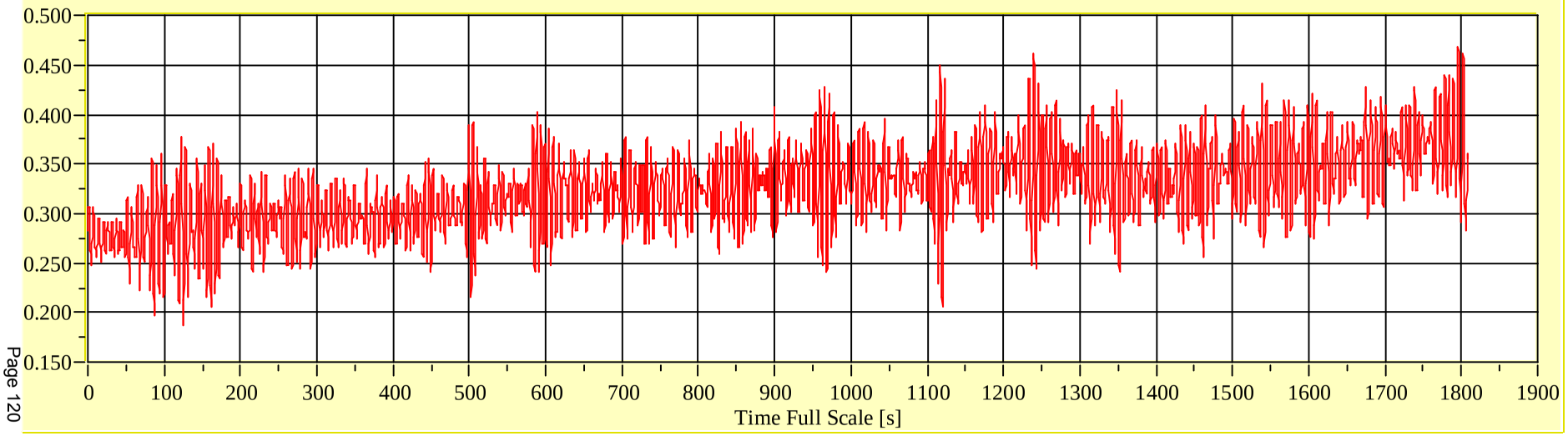
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-04	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

Heave [m]



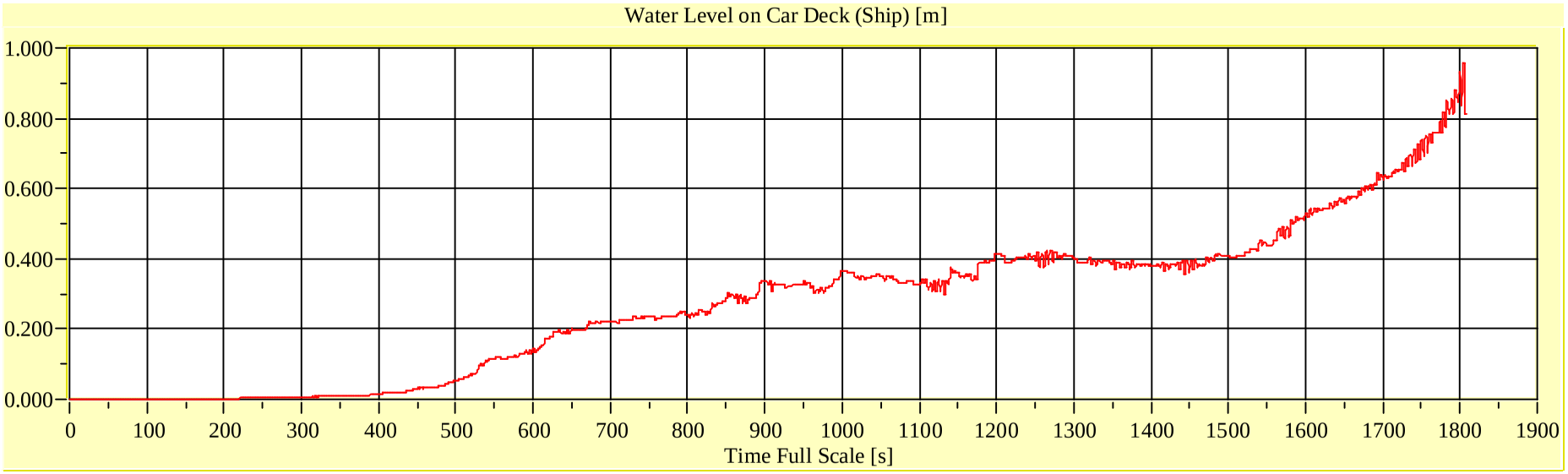
Pitch Angle [deg] (Bow Trim = Positiv)



Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-04	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3



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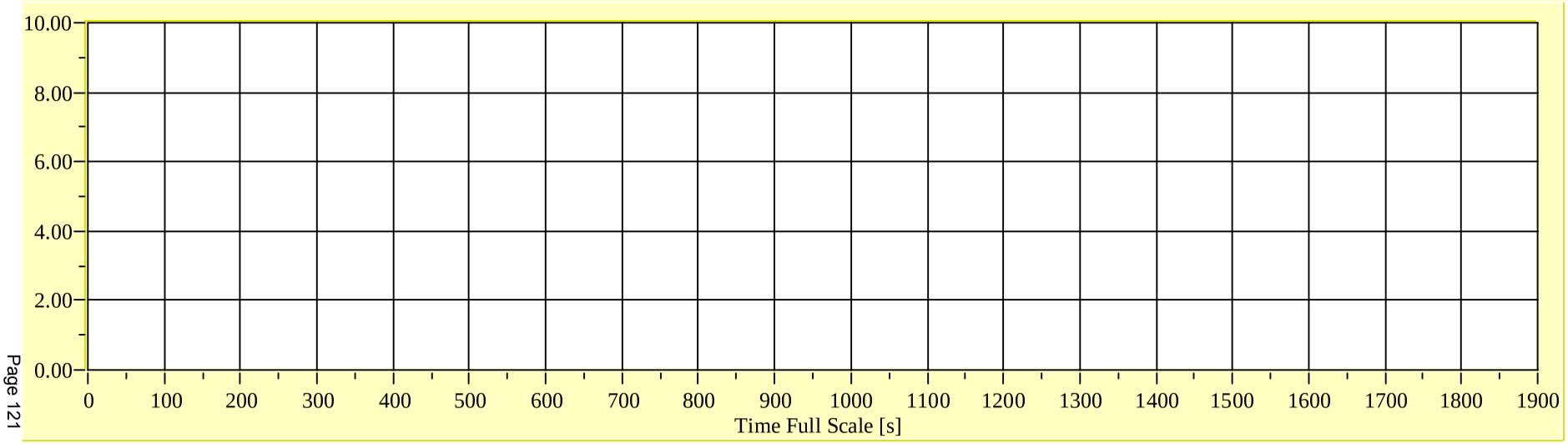
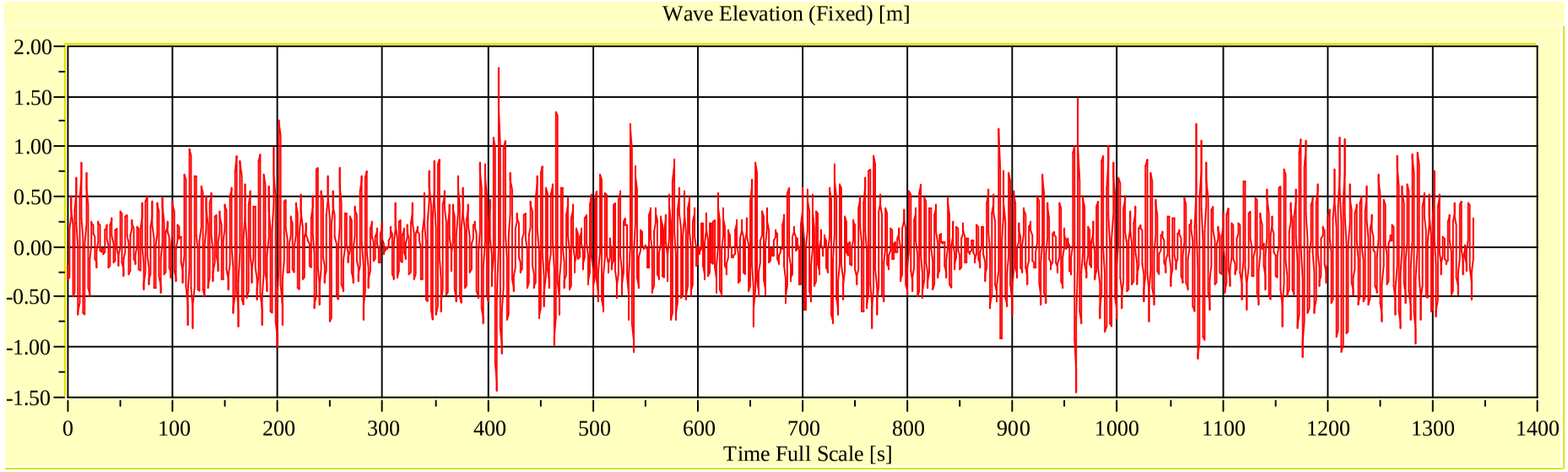
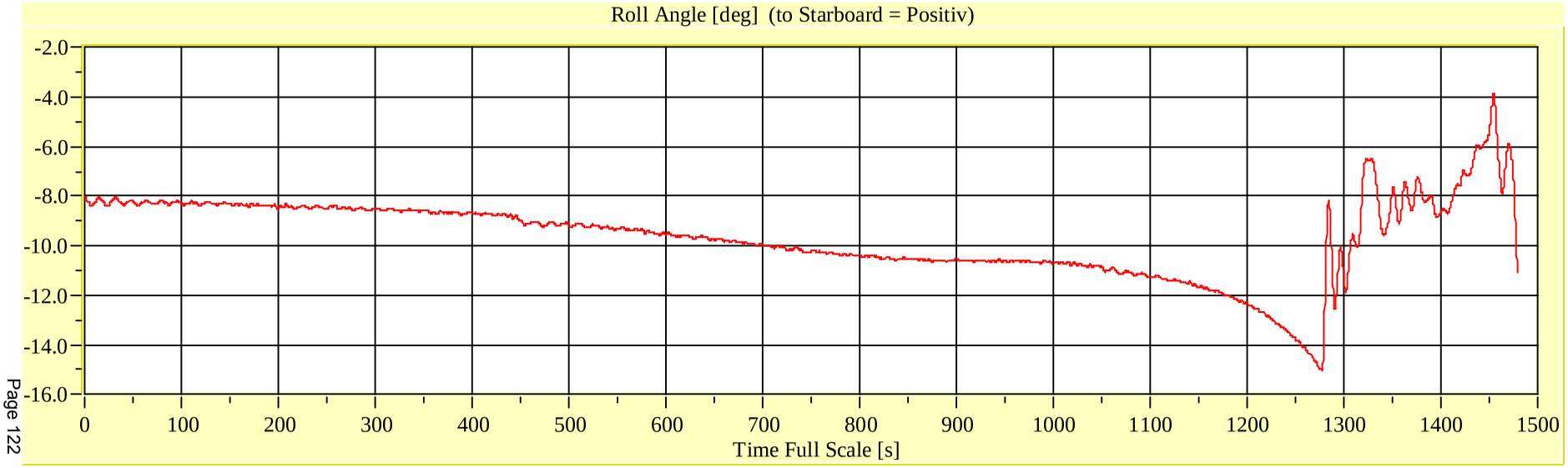


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-05	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

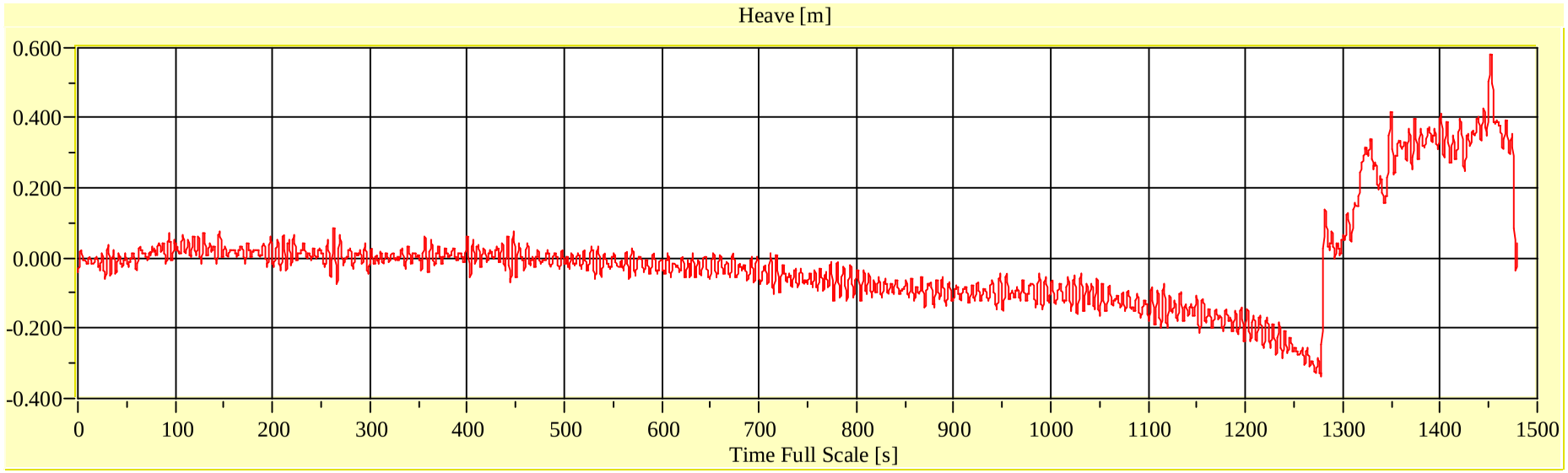


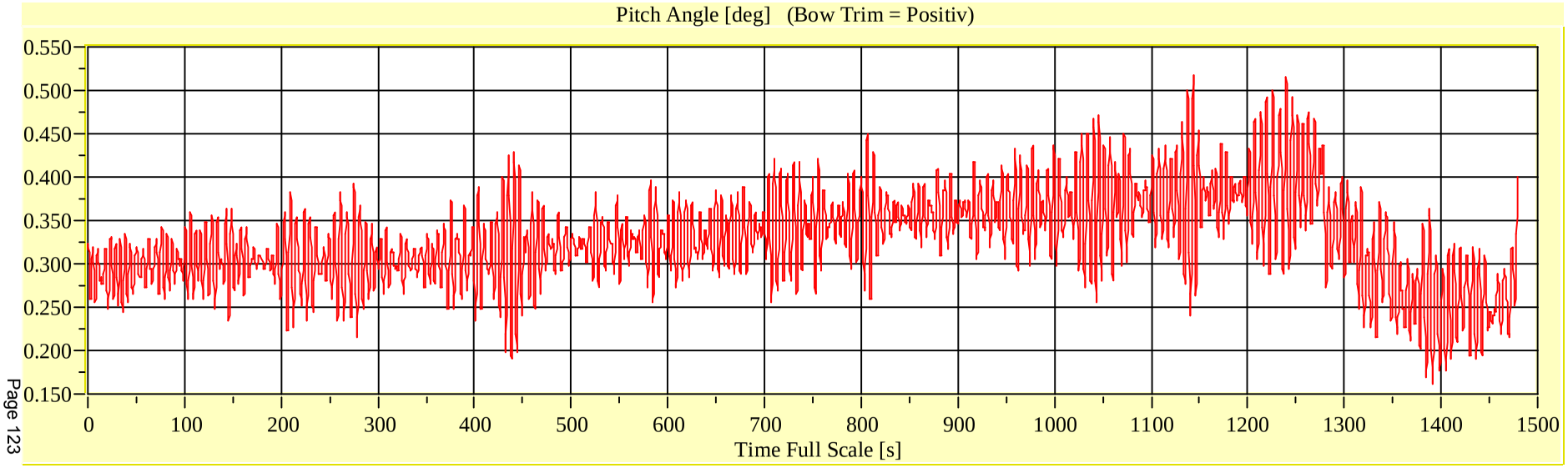


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-05	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3



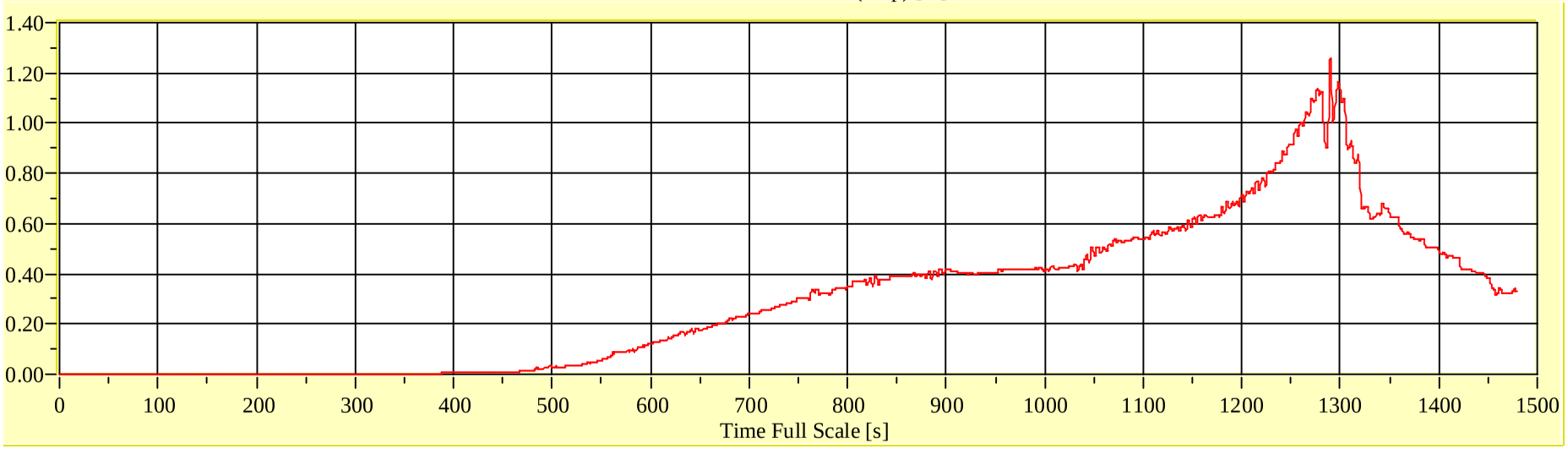


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29726-05	Target Waves: Hs = 1,5 m Tp = 4,899 s	gamma = 3,3

Water Level on Car Deck (Ship) [m]



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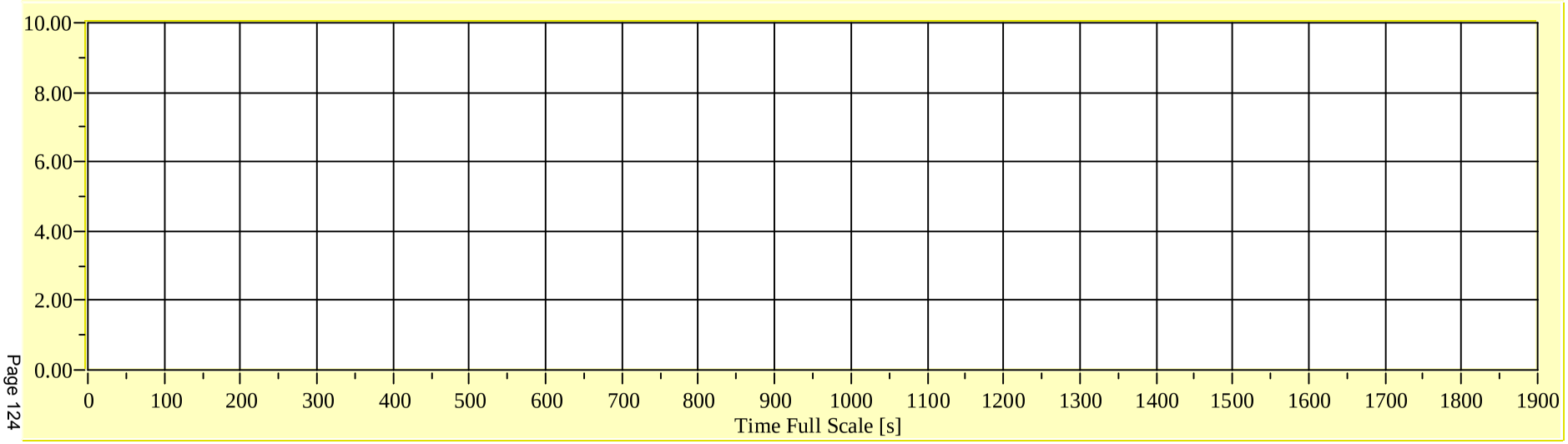
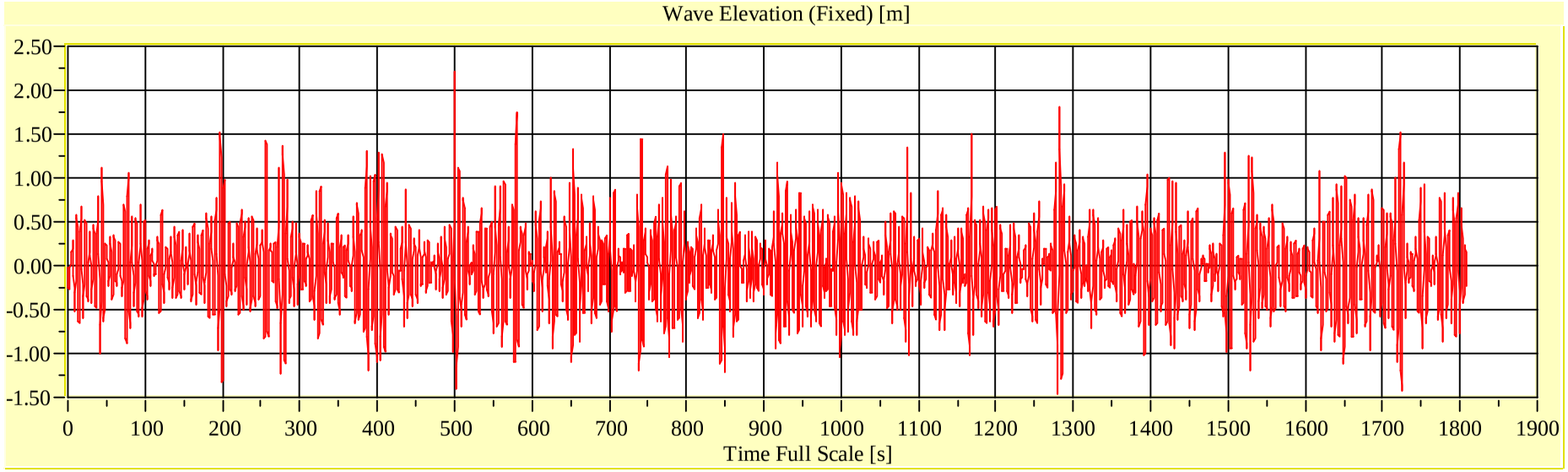
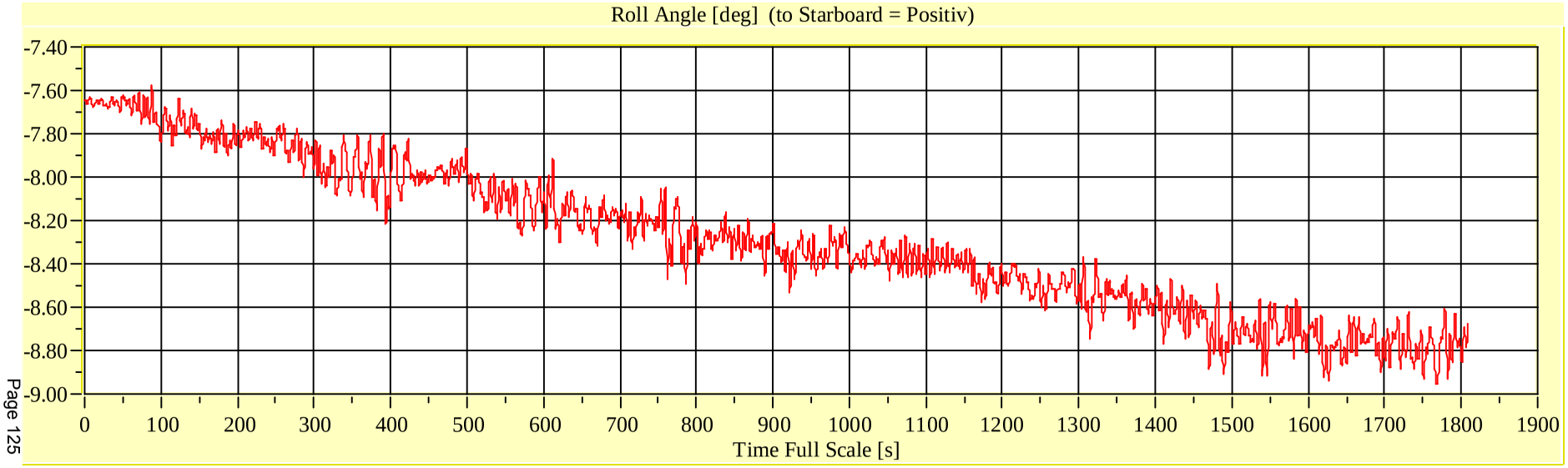


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-01	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

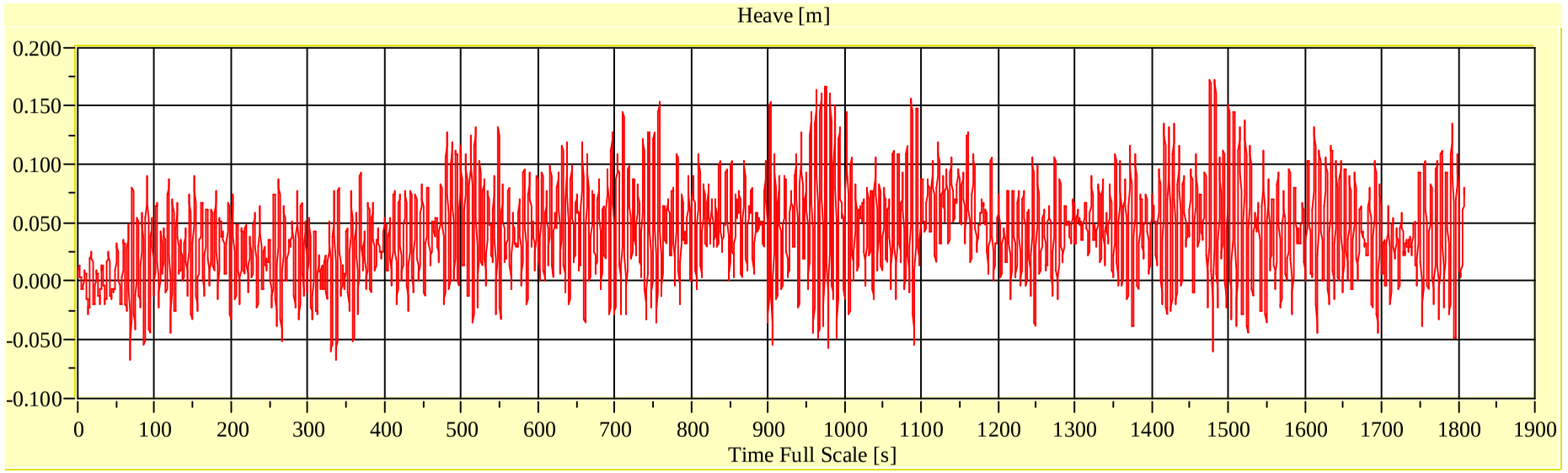


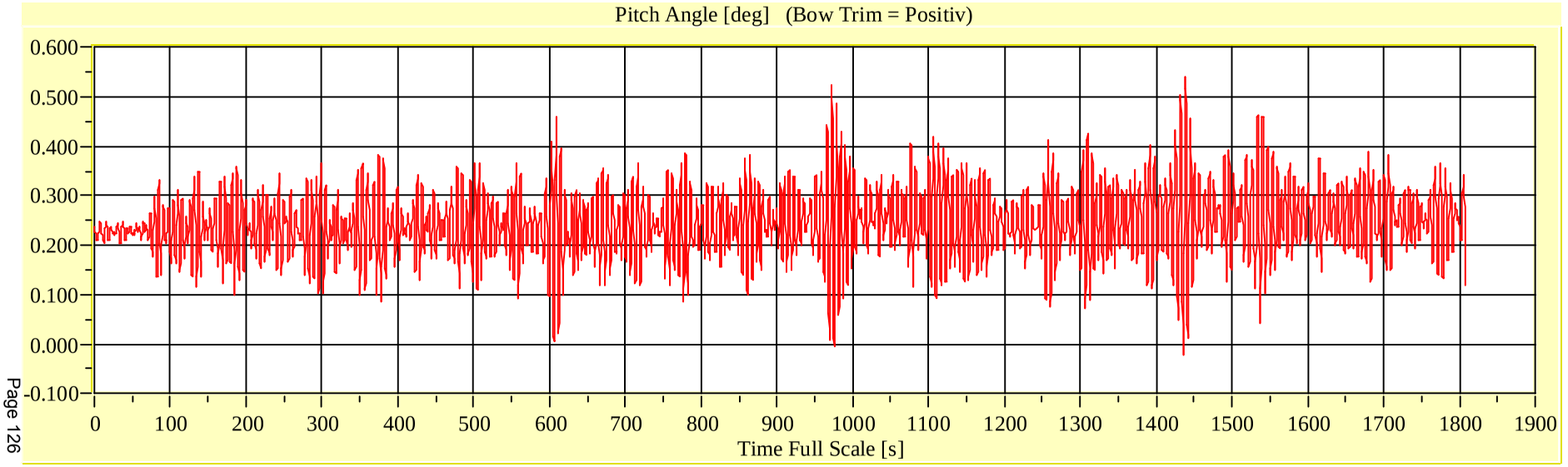


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-01	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

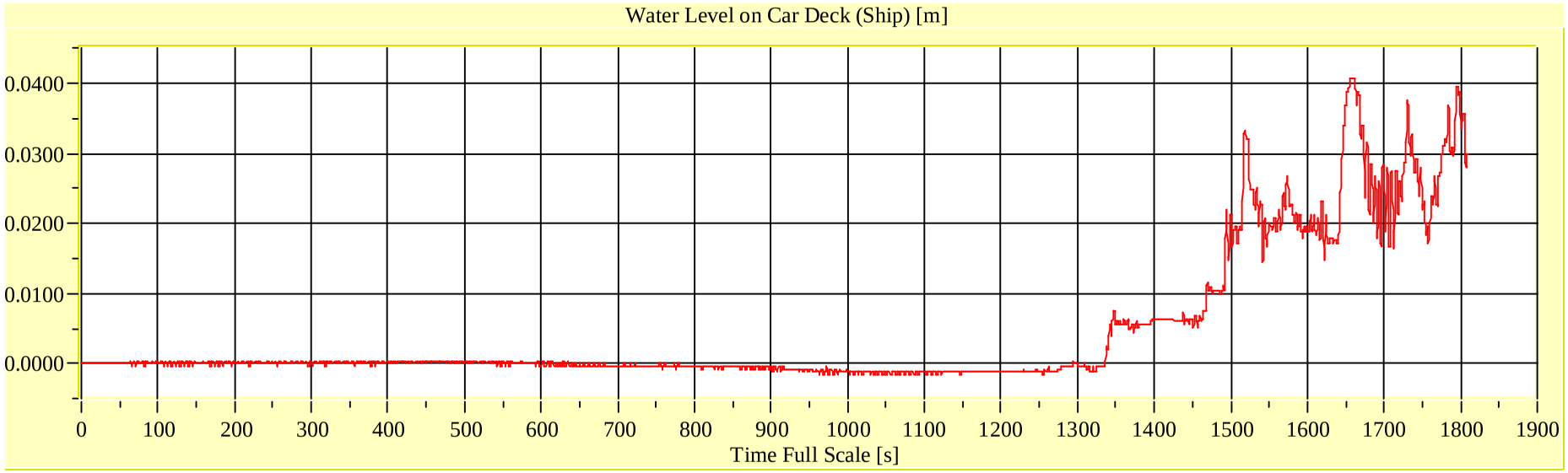


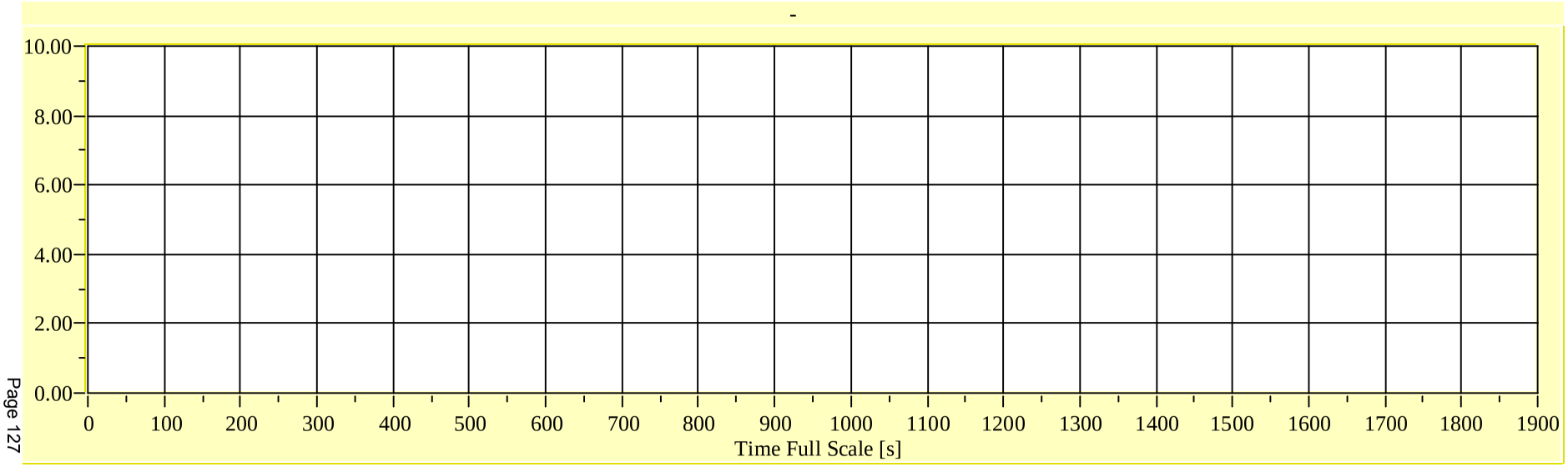


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-01	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3



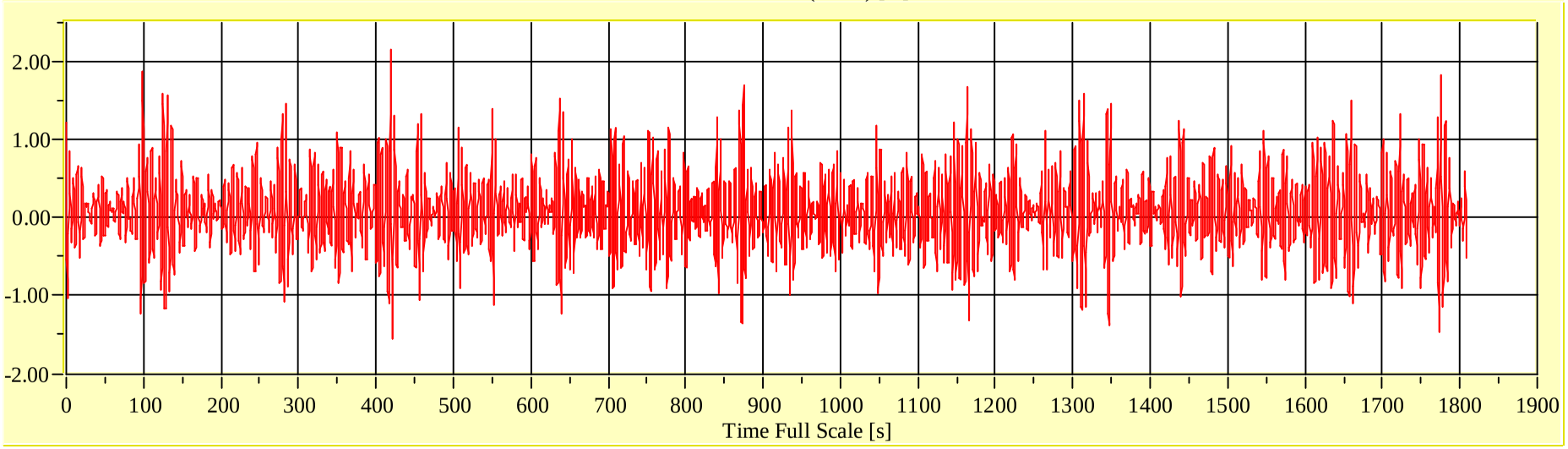


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

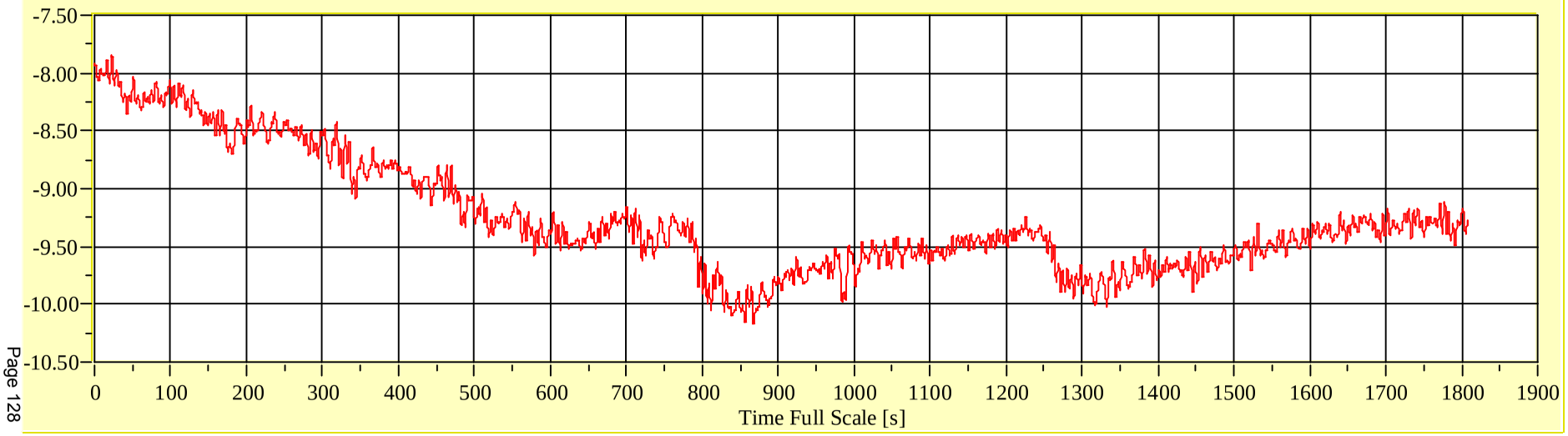
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-02	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

Wave Elevation (Fixed) [m]



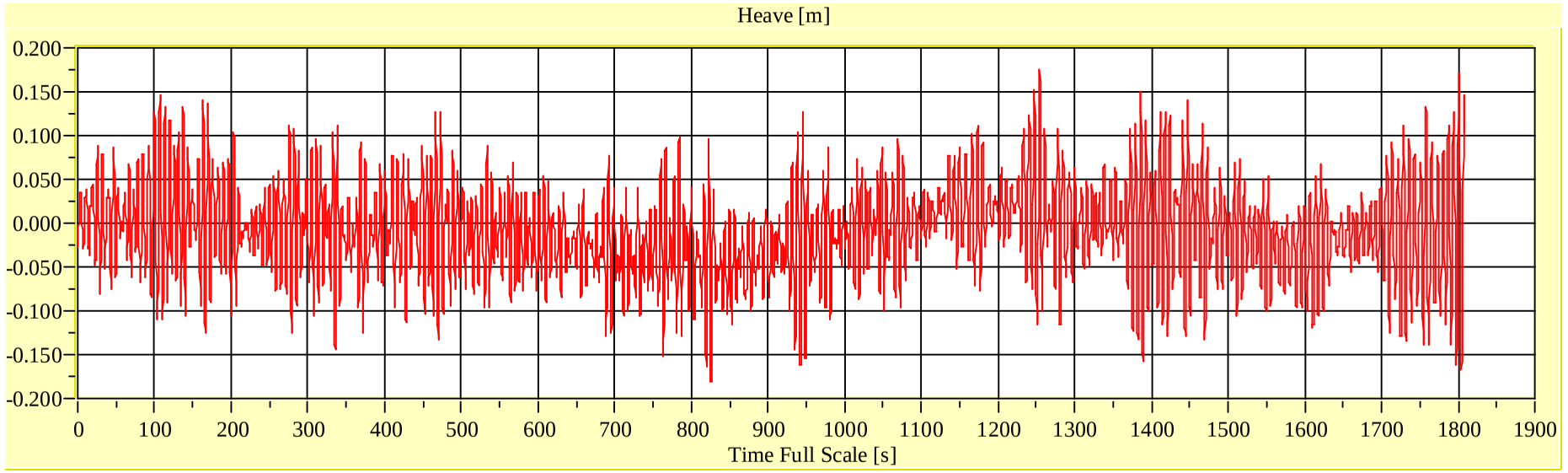
Roll Angle [deg] (to Starboard = Positiv)

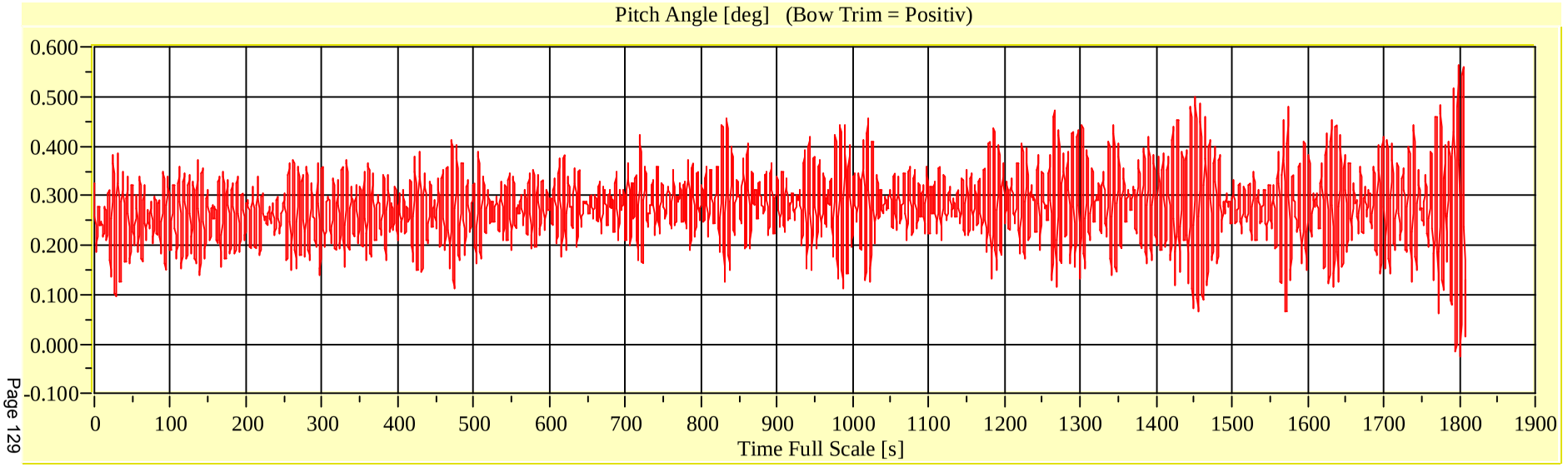


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-02	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

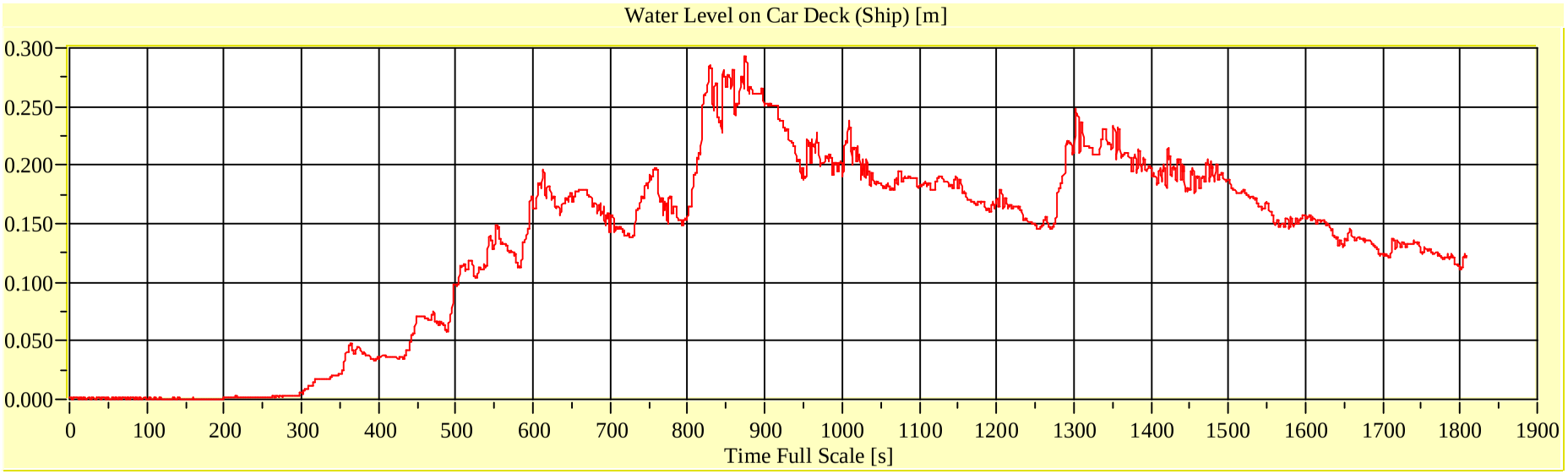


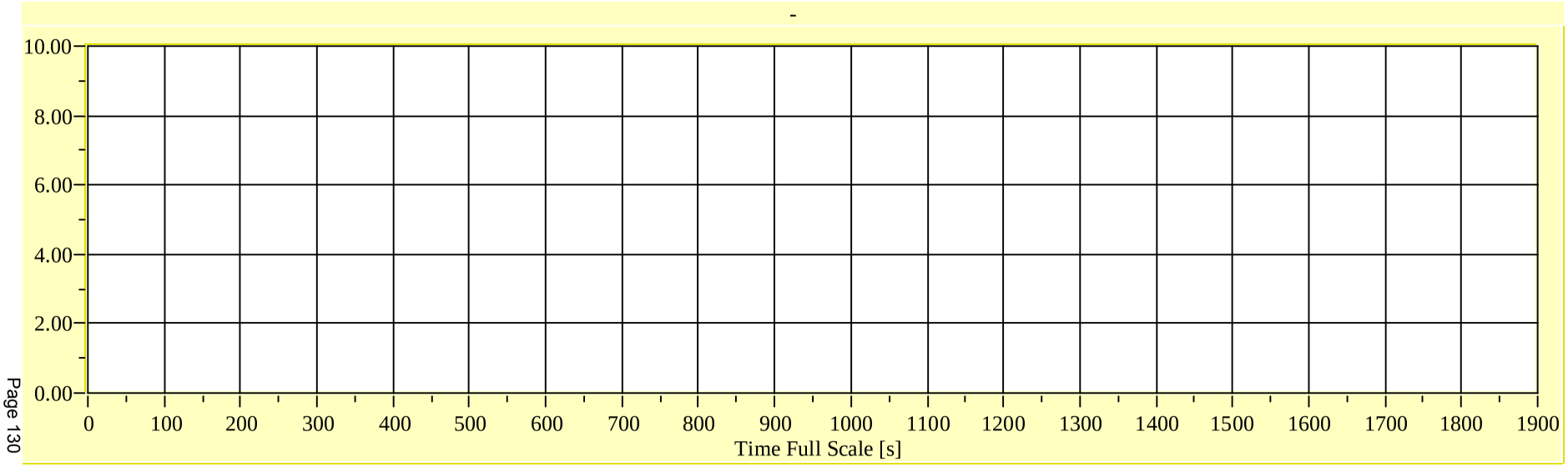


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-02	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

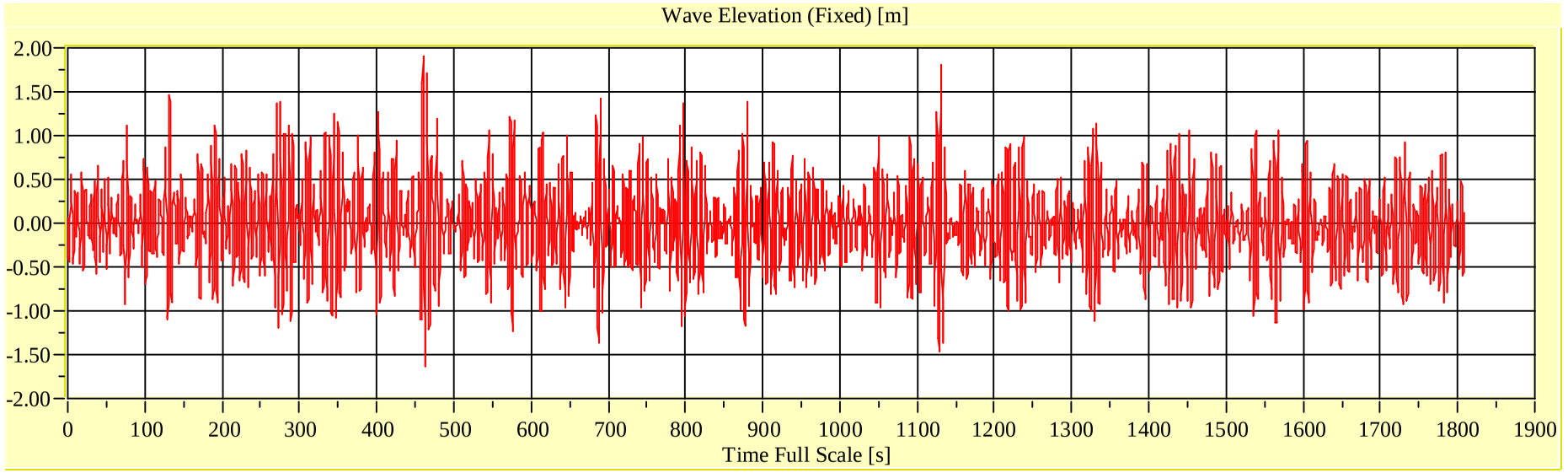


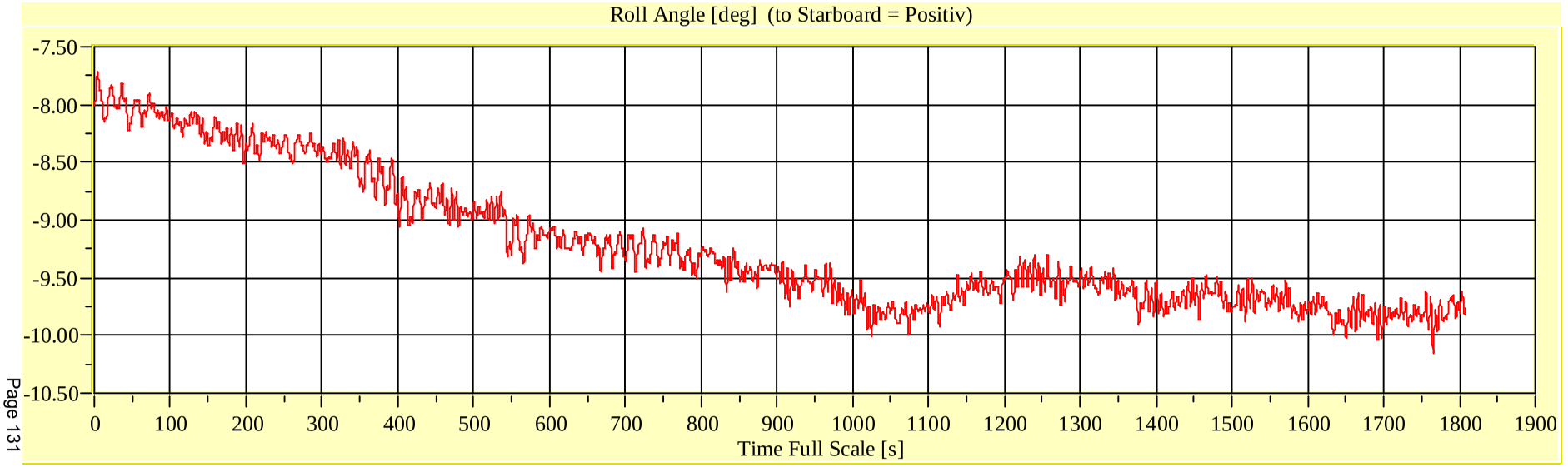


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-03	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

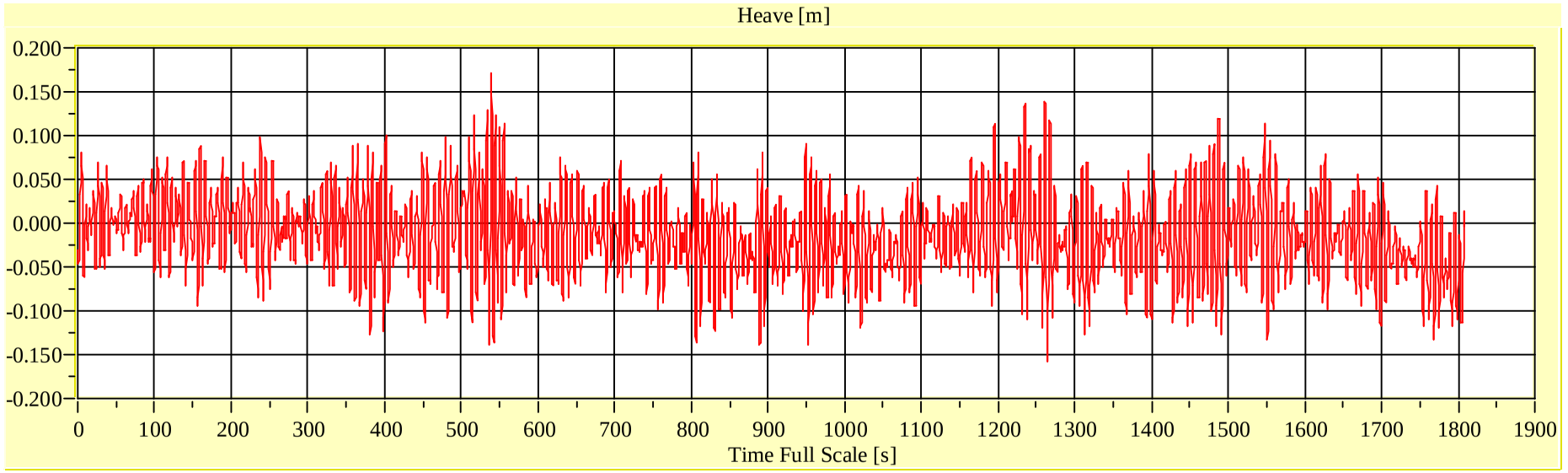


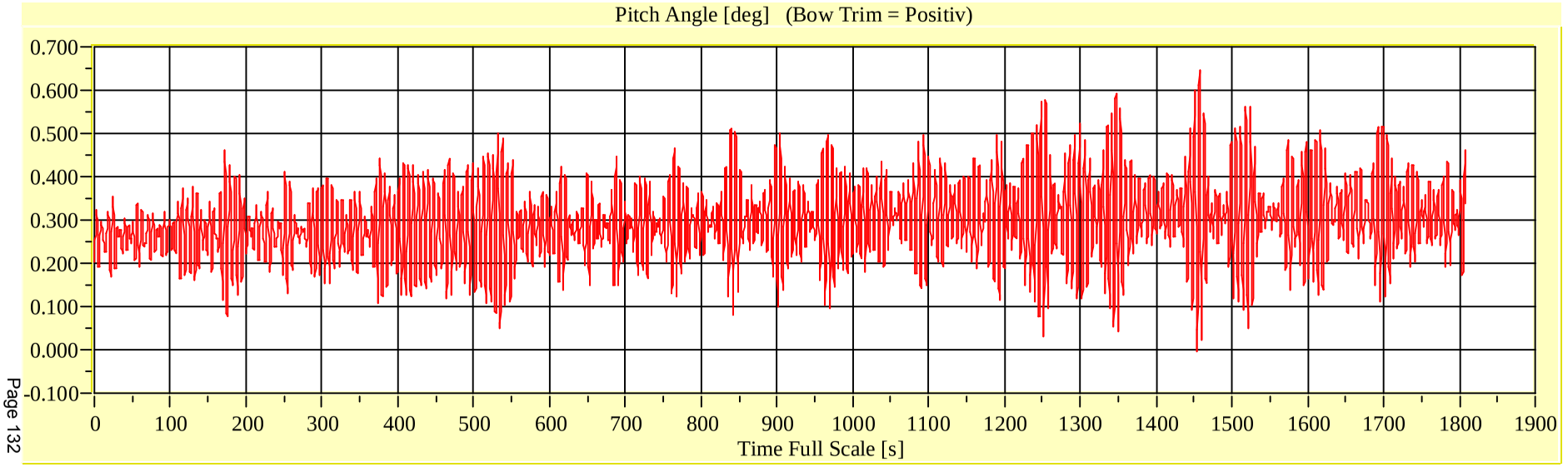


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-03	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

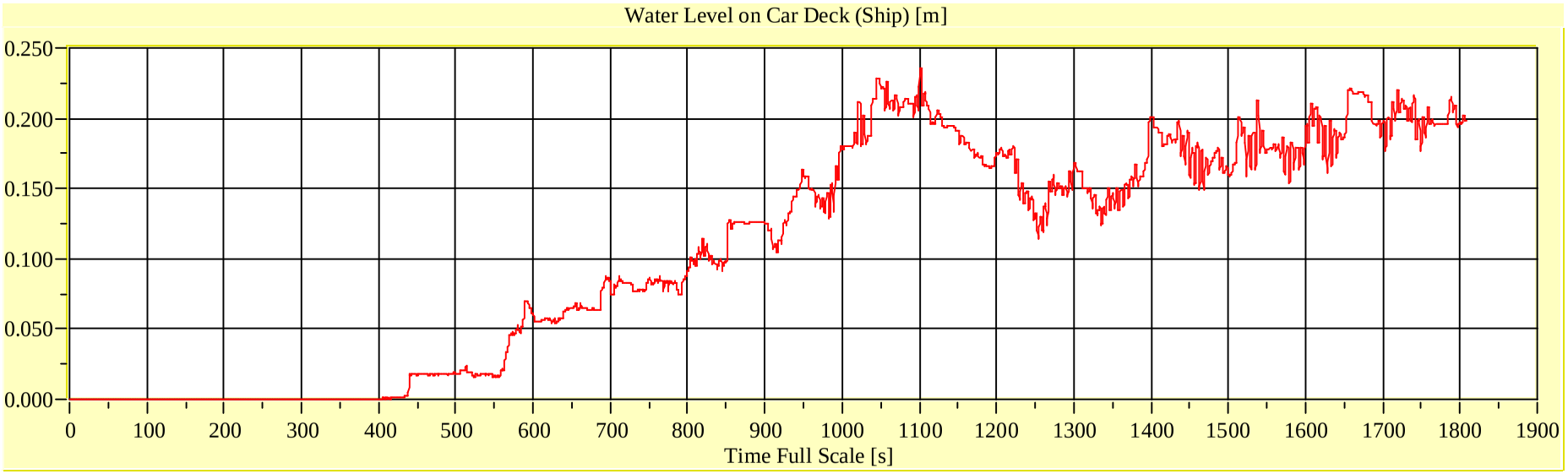




Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-03	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3



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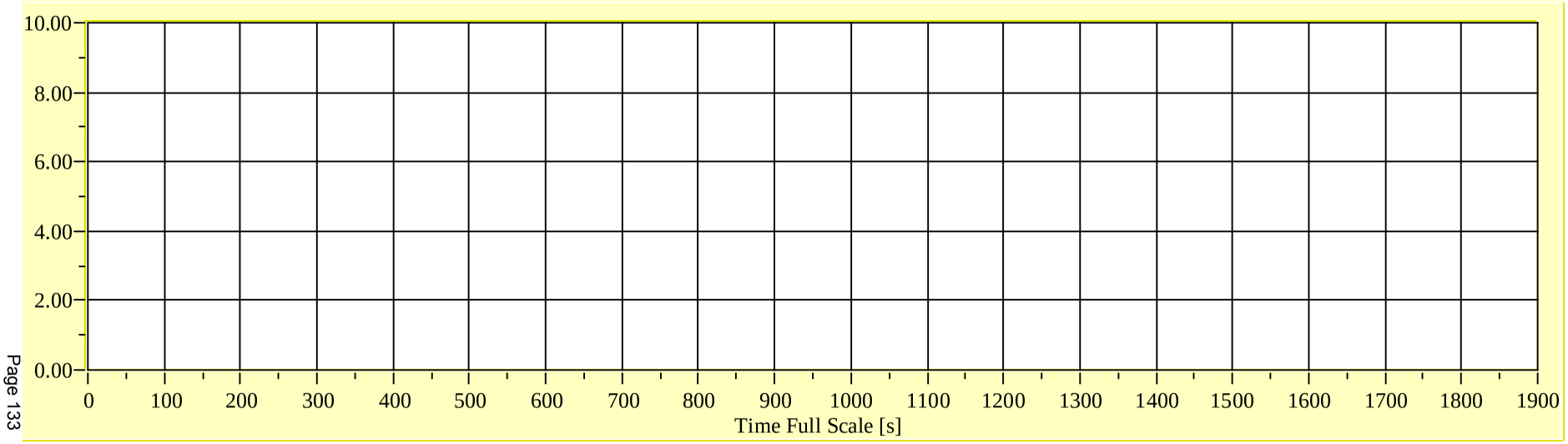
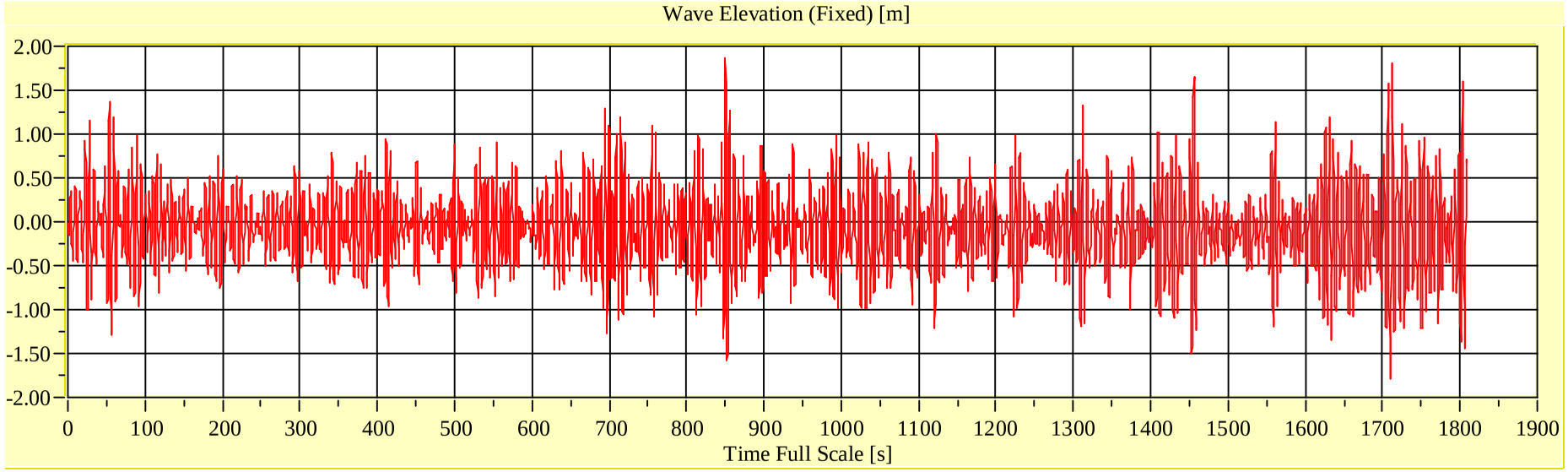
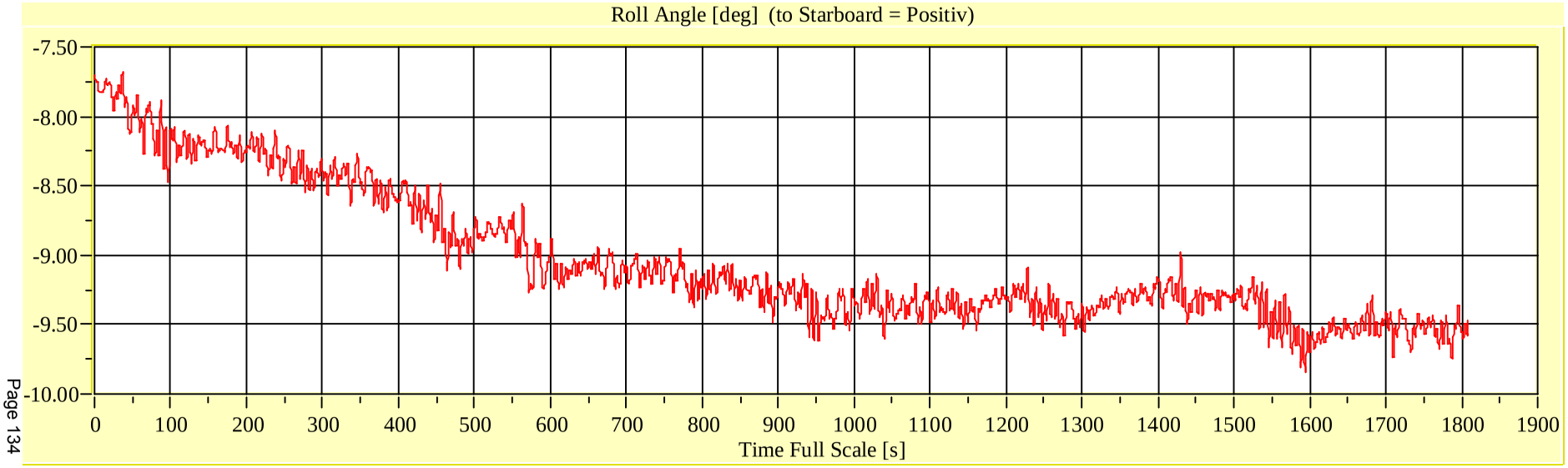


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-04	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3



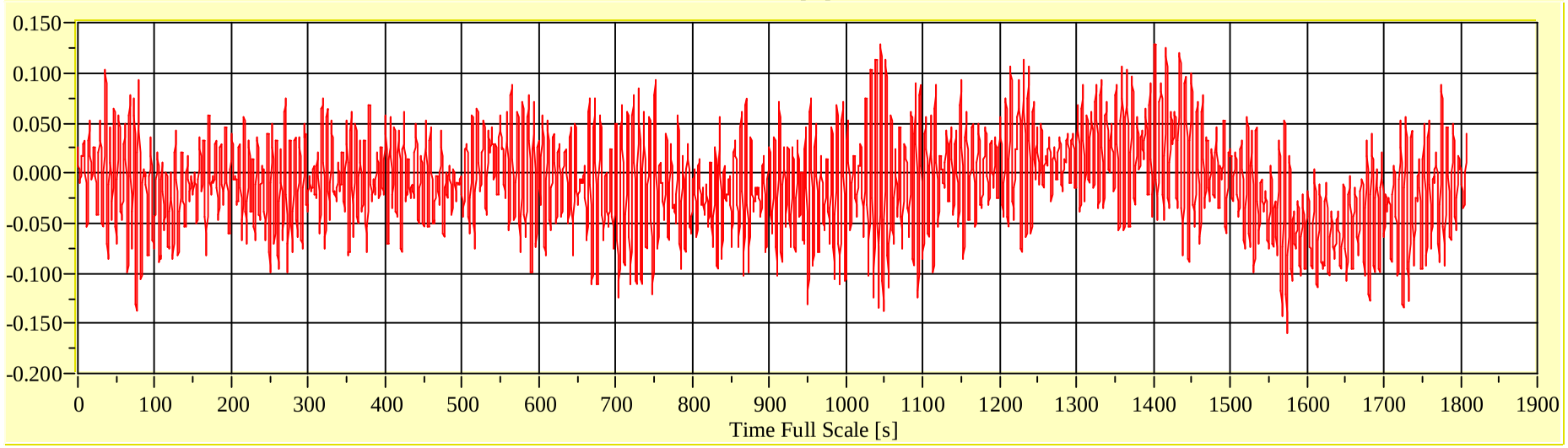


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

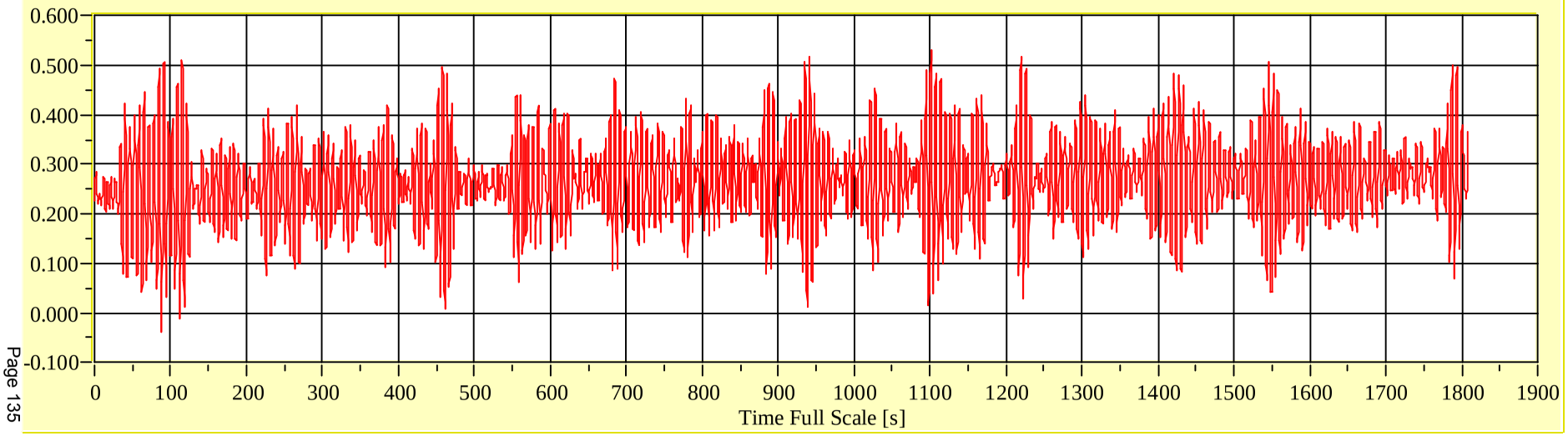
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-04	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

Heave [m]

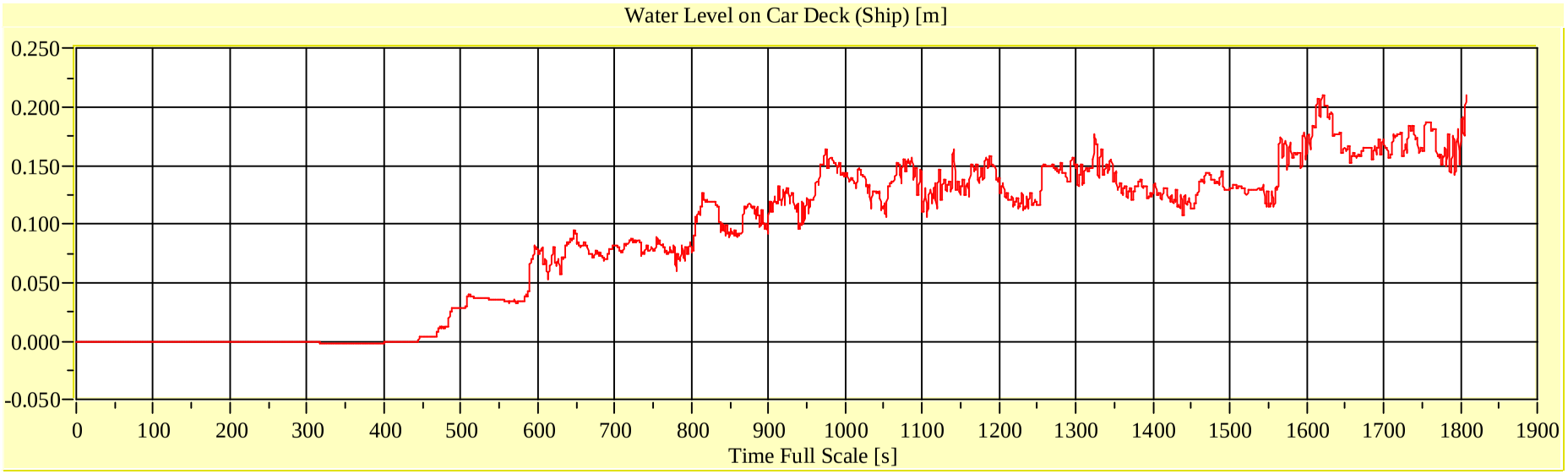


Pitch Angle [deg] (Bow Trim = Positiv)



Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas				
Vienna Model Basin	Model No. 2461	Test No. 29727-04	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3



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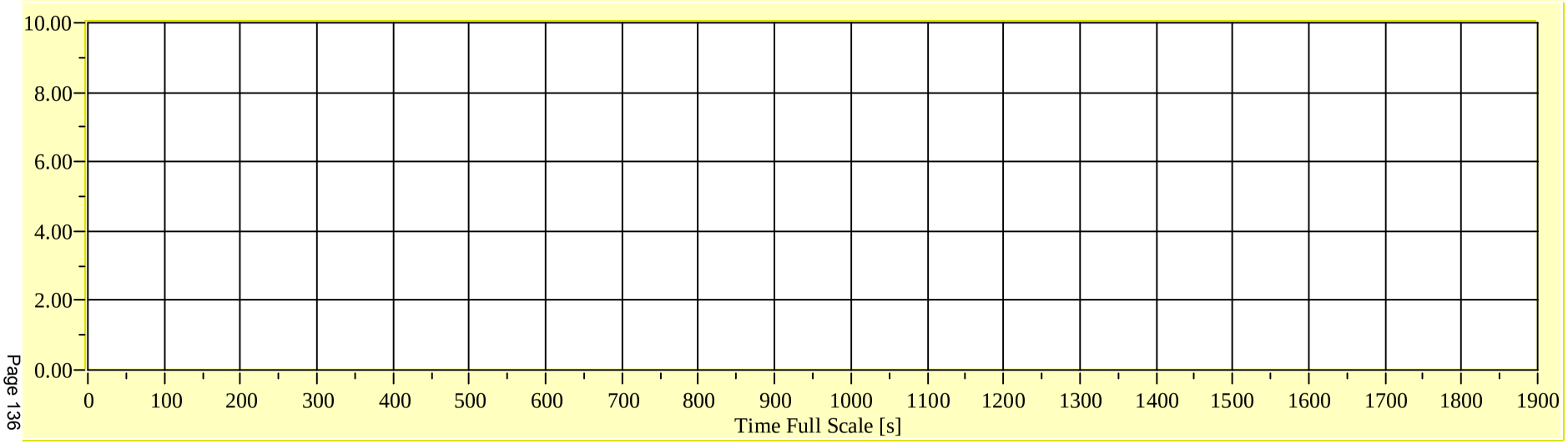
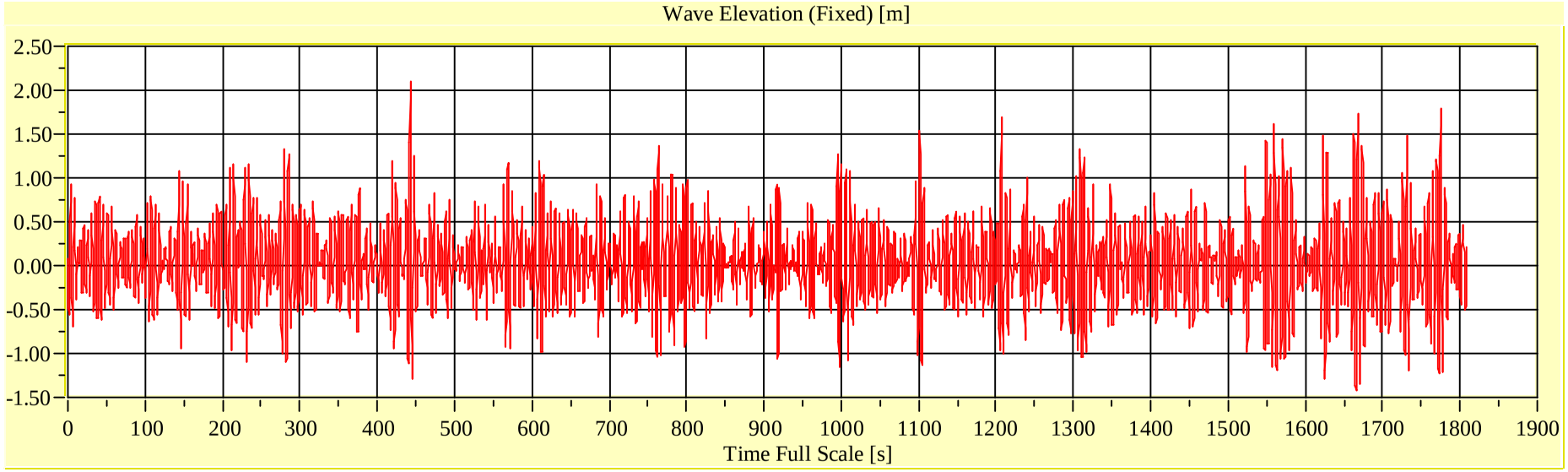
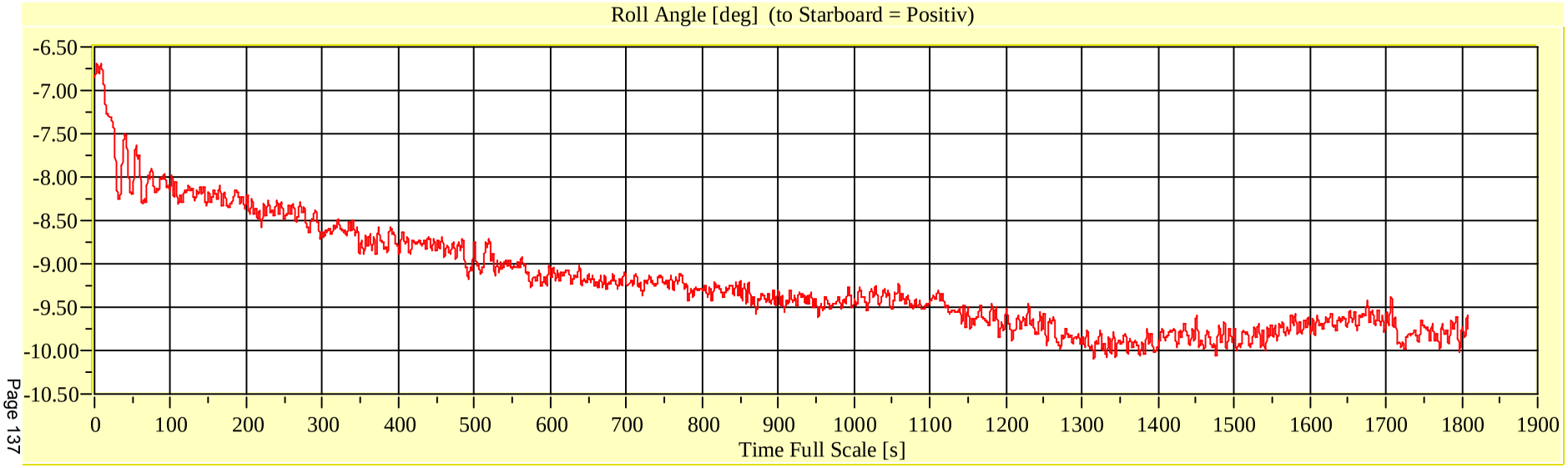


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-05	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

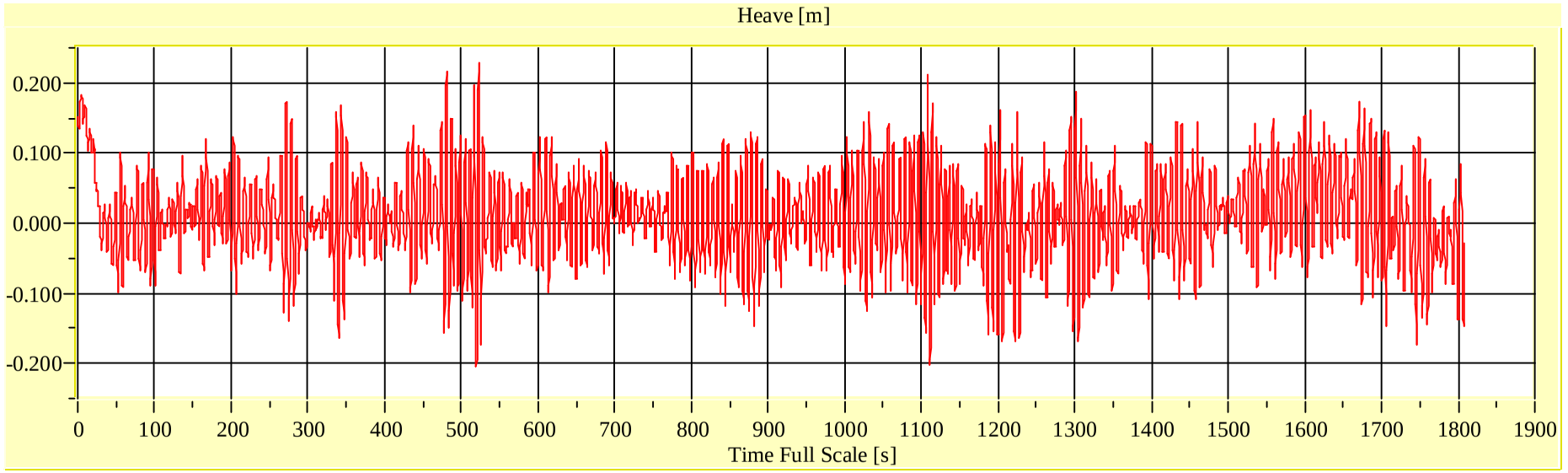


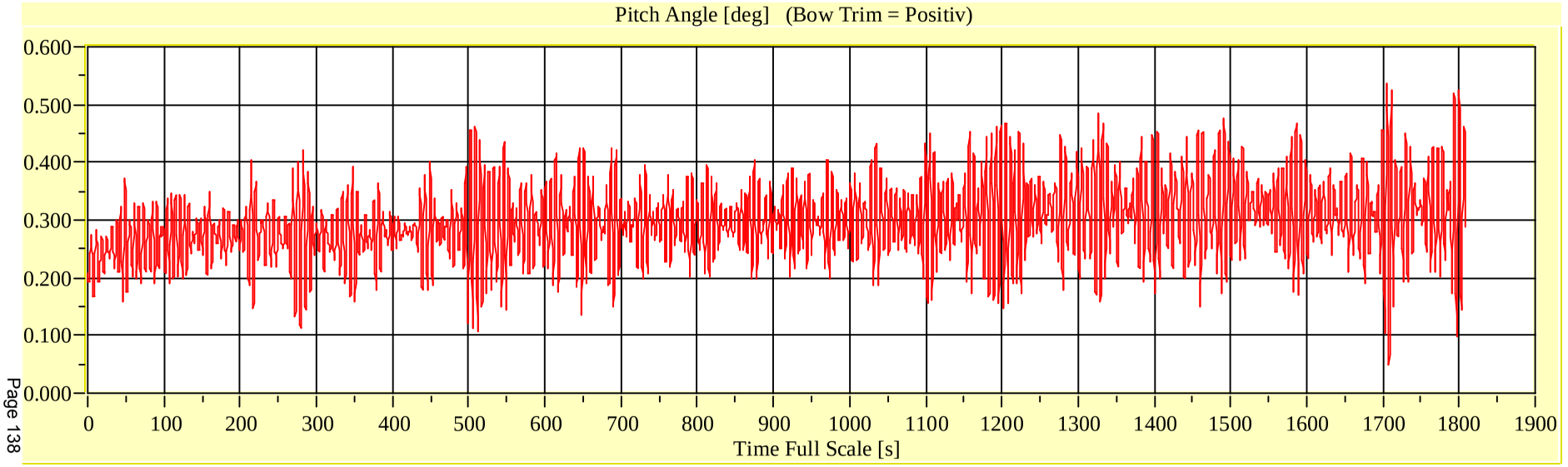


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-05	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

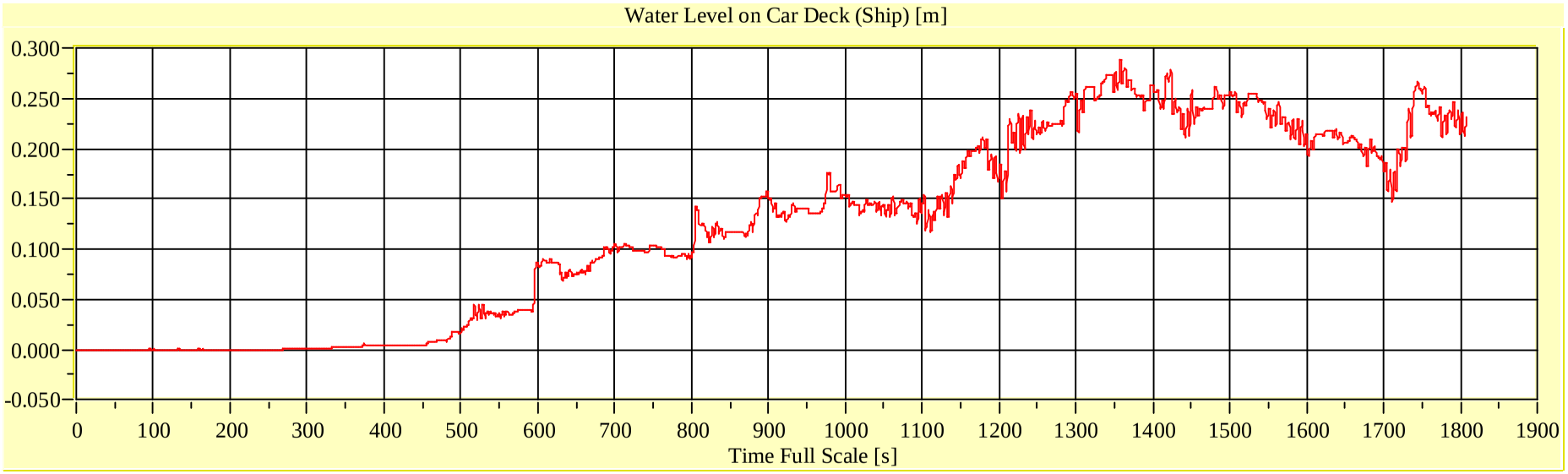


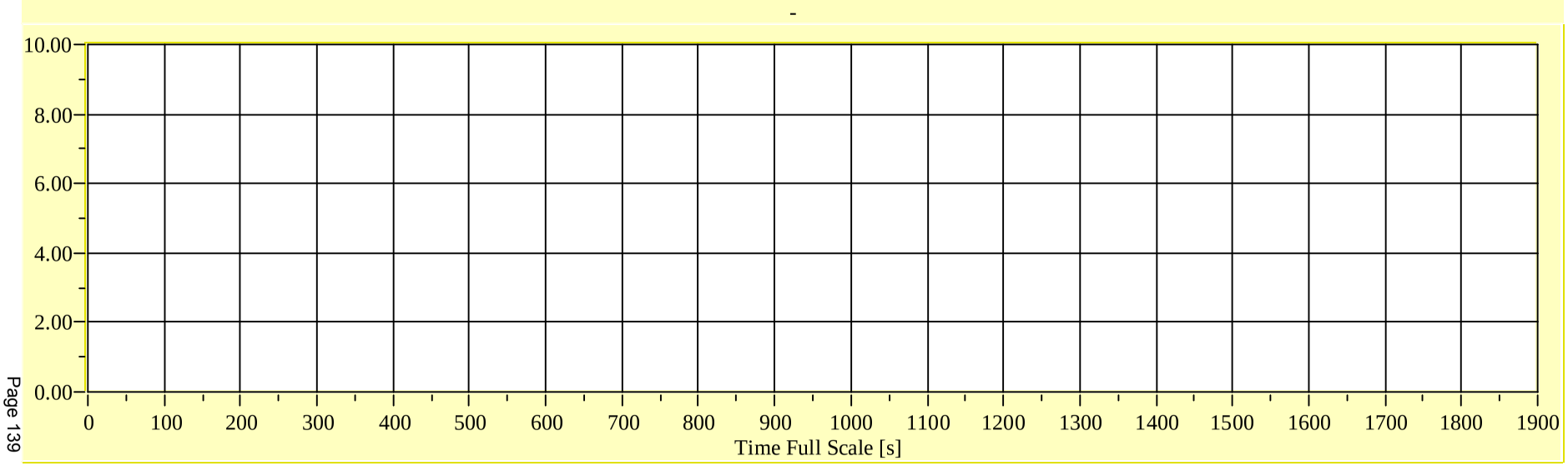


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29727-05	Target Waves: Hs = 1,75 m Tp = 5,2915 s	gamma = 3,3

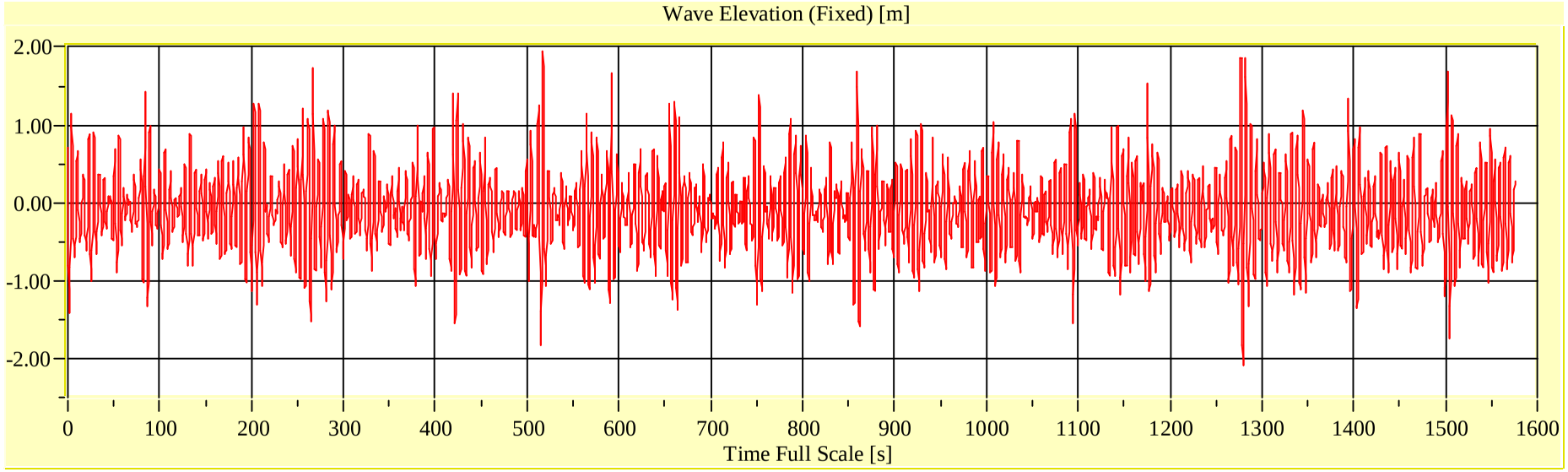


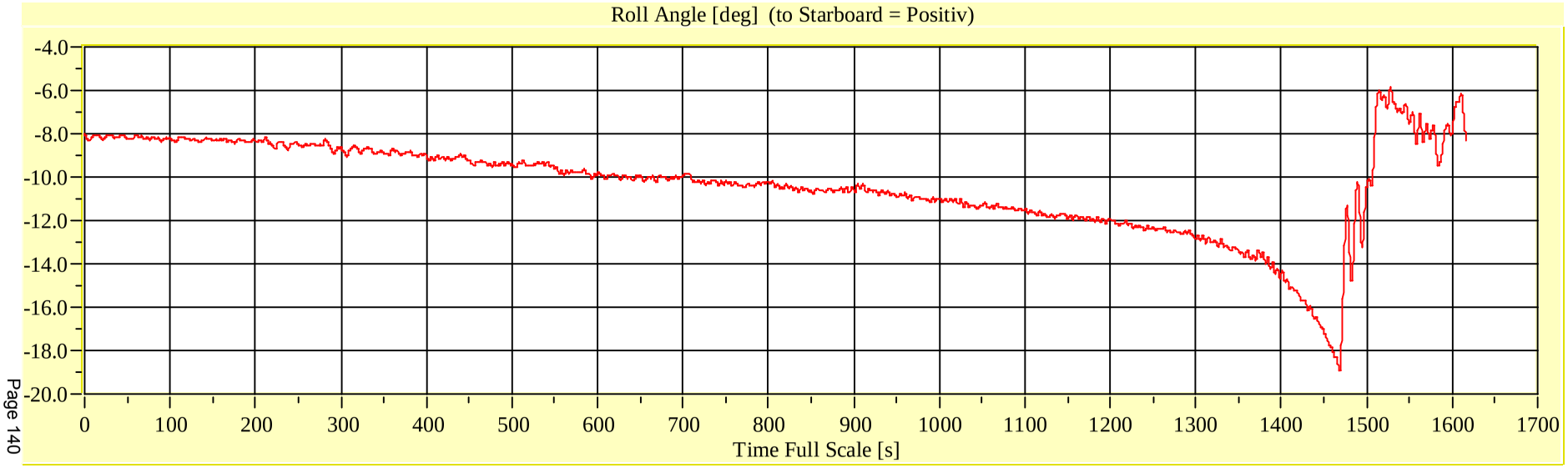


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-01	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

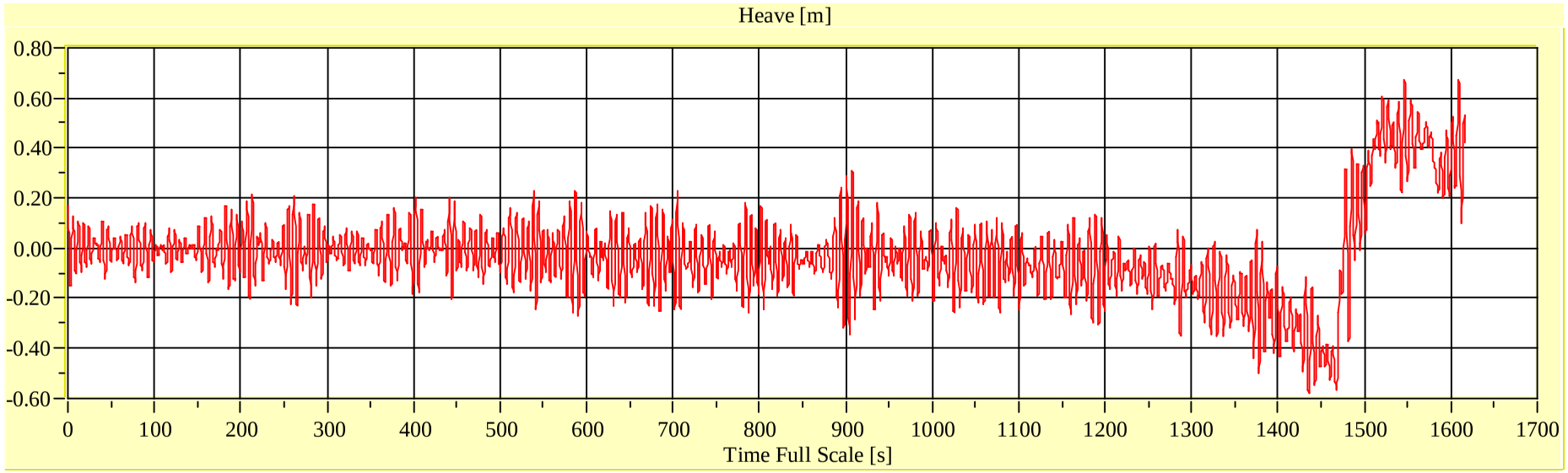


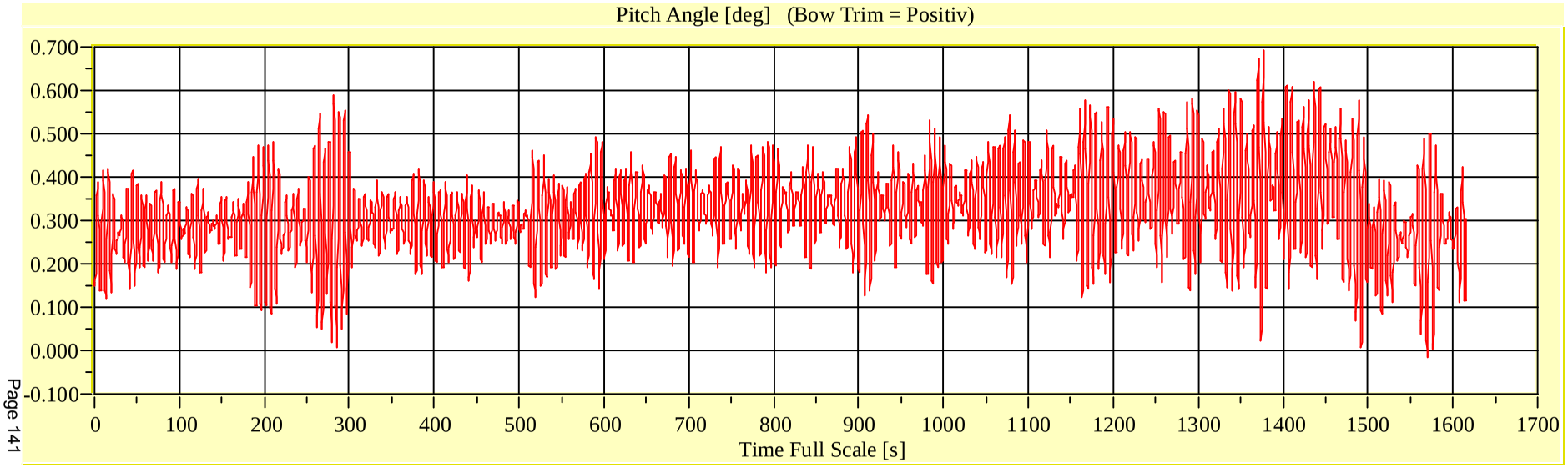


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-01	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

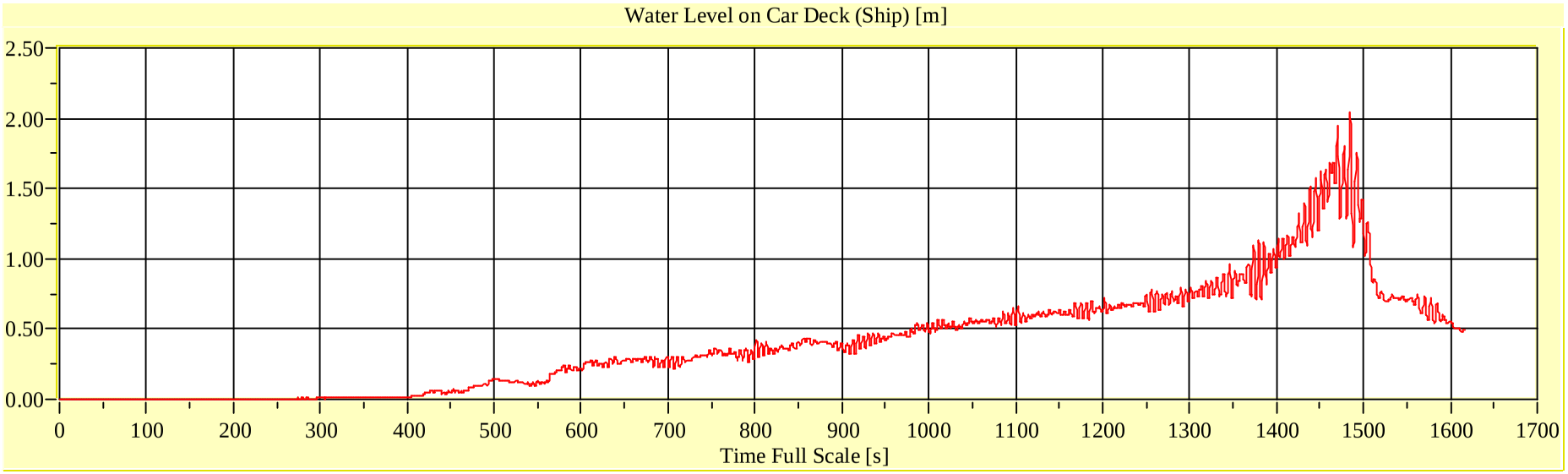


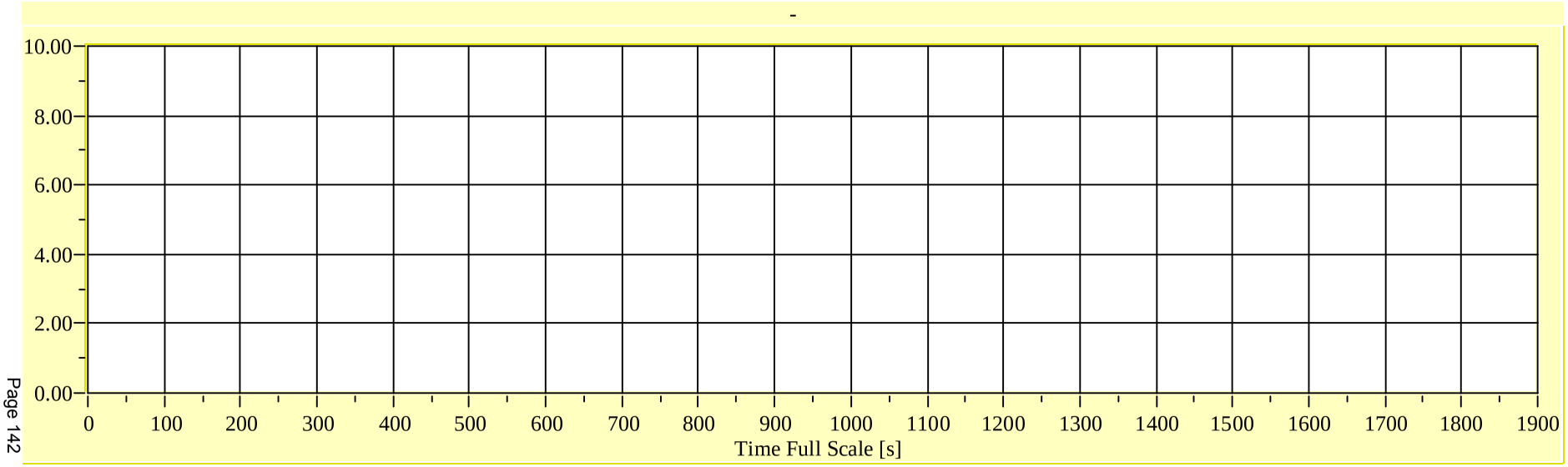


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-01	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

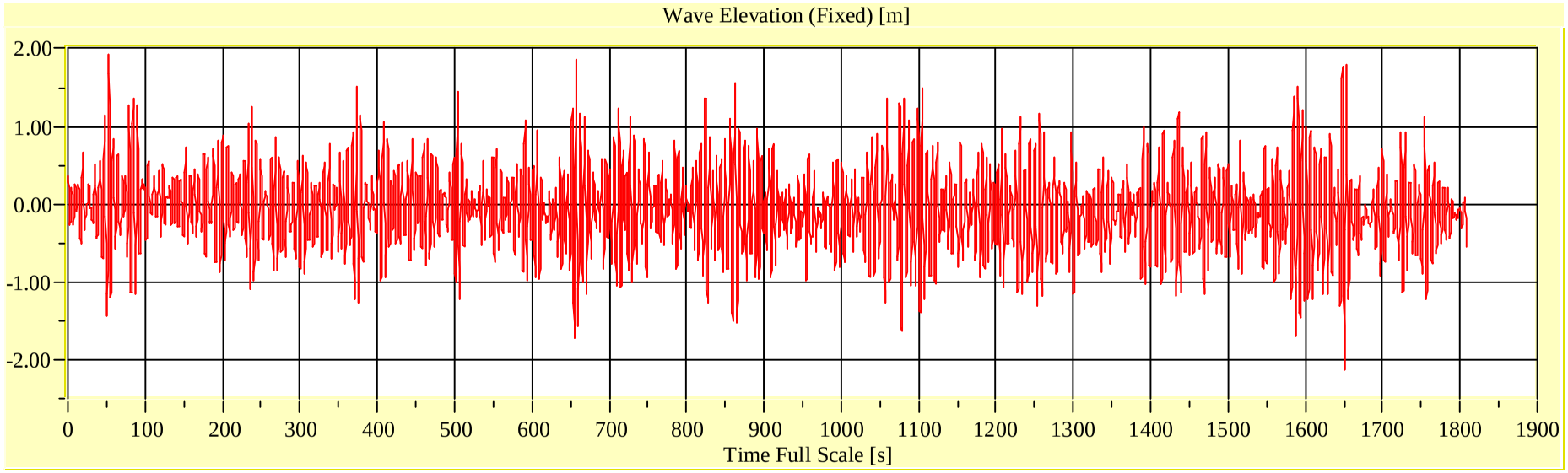


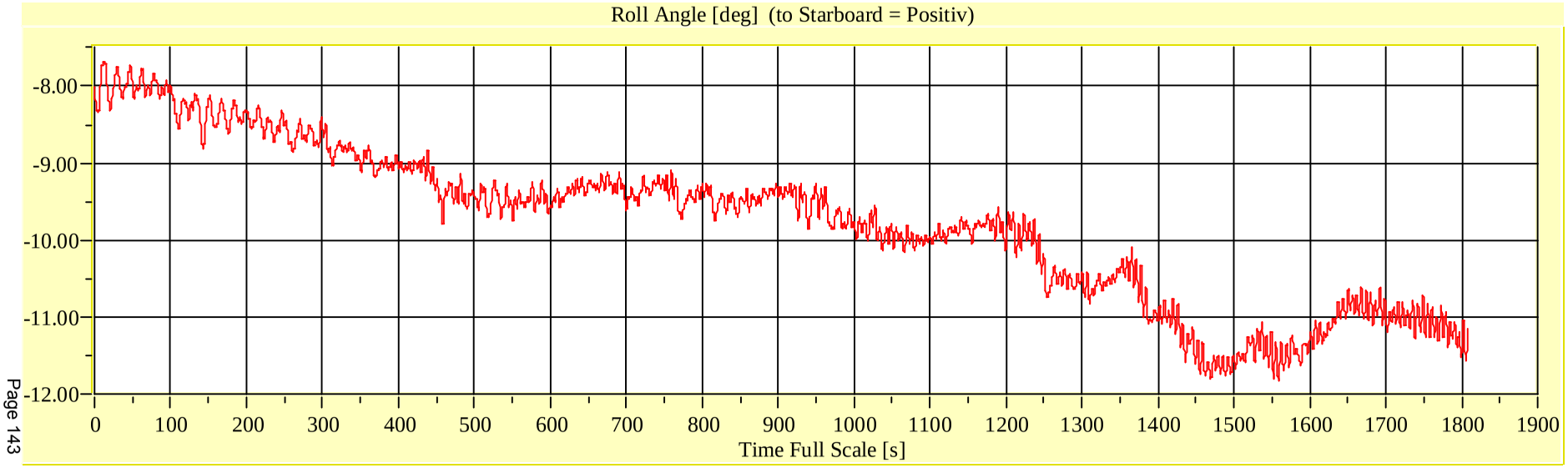


Date: 24.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-02	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3



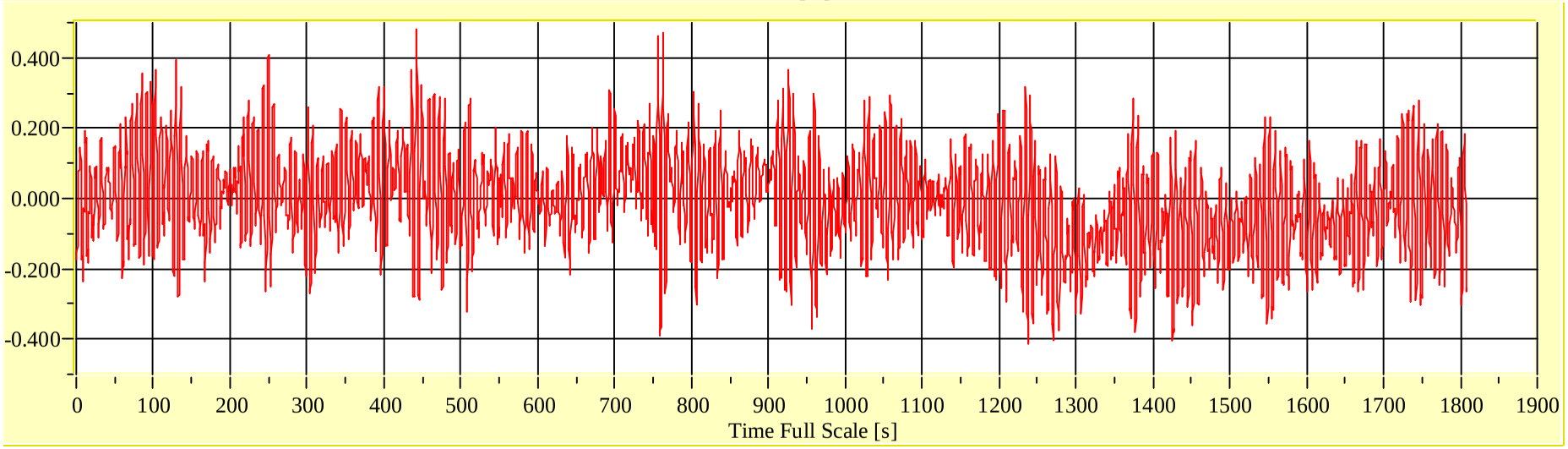


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

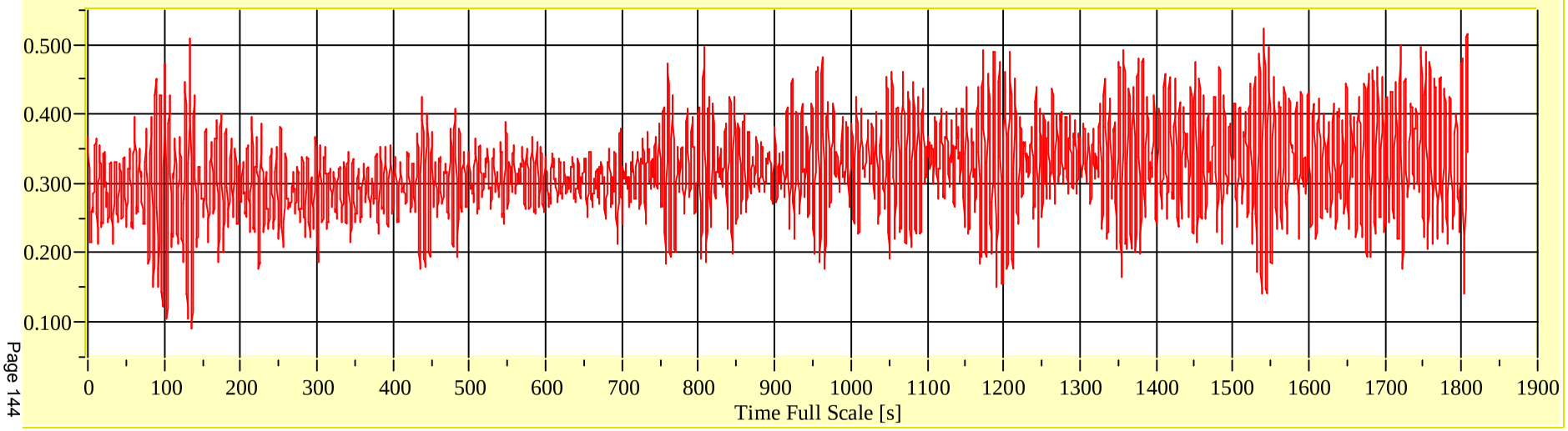
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-02	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

Heave [m]



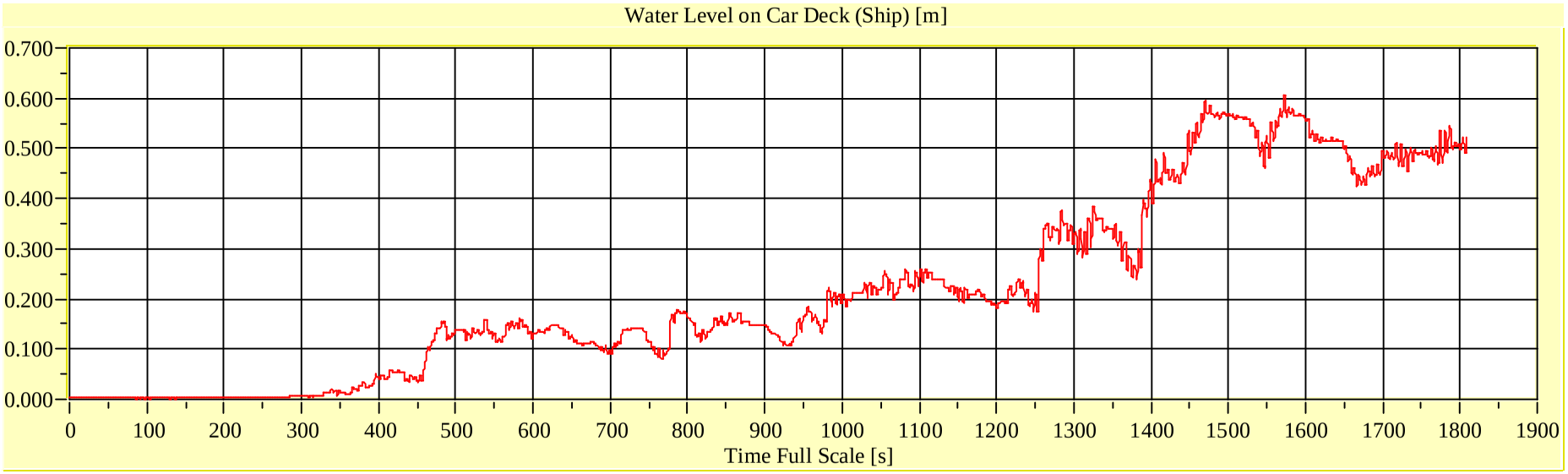
Pitch Angle [deg] (Bow Trim = Positiv)



Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-02	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3



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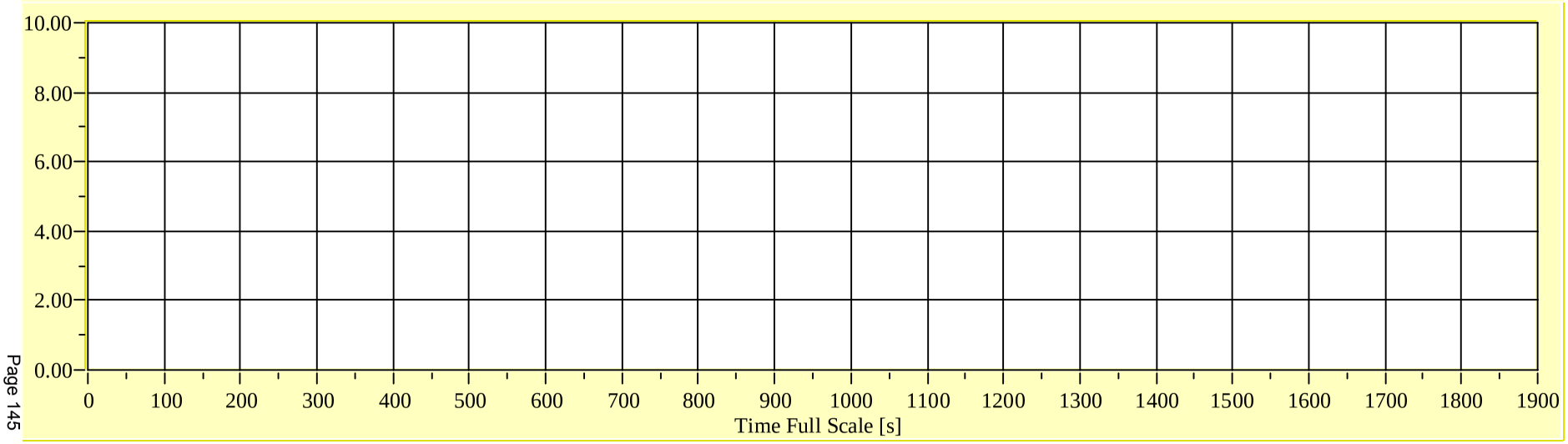
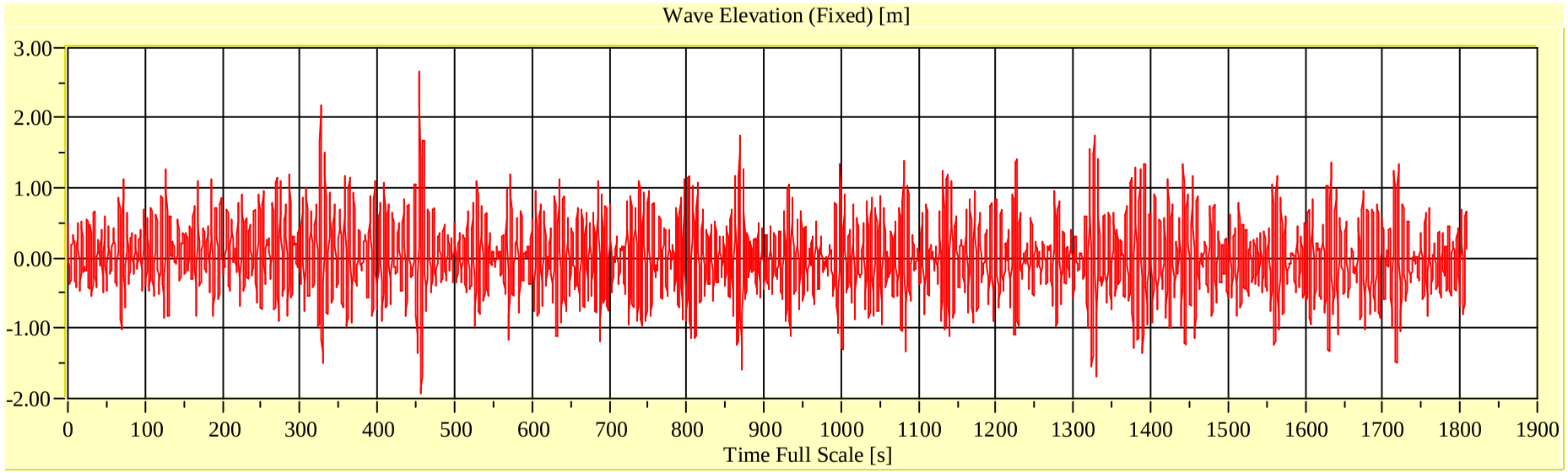
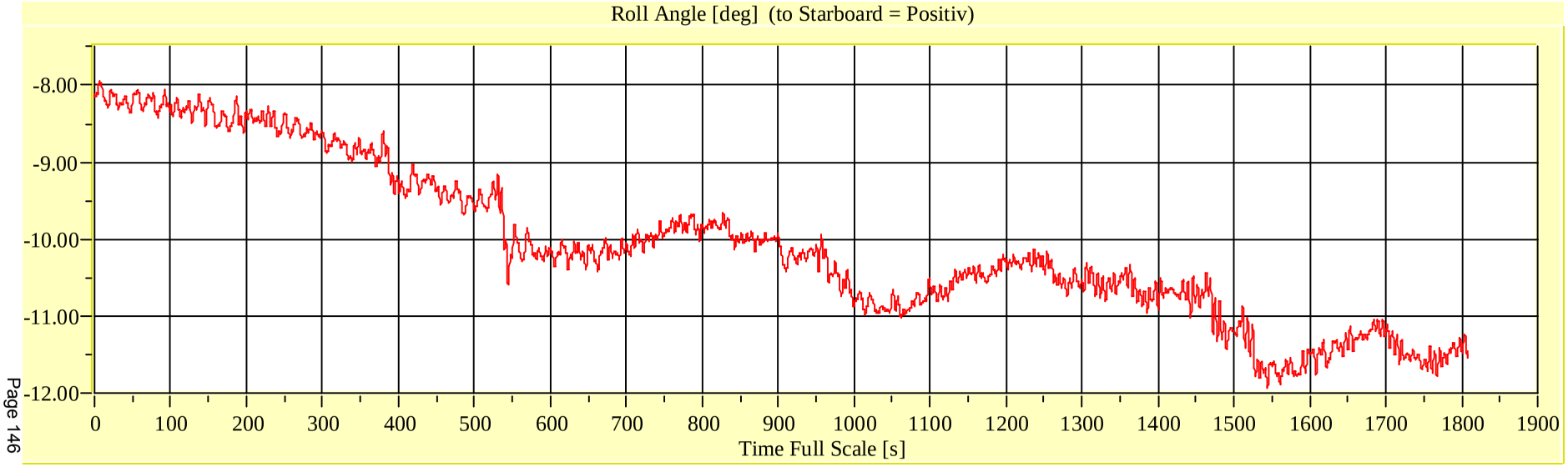


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-03	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

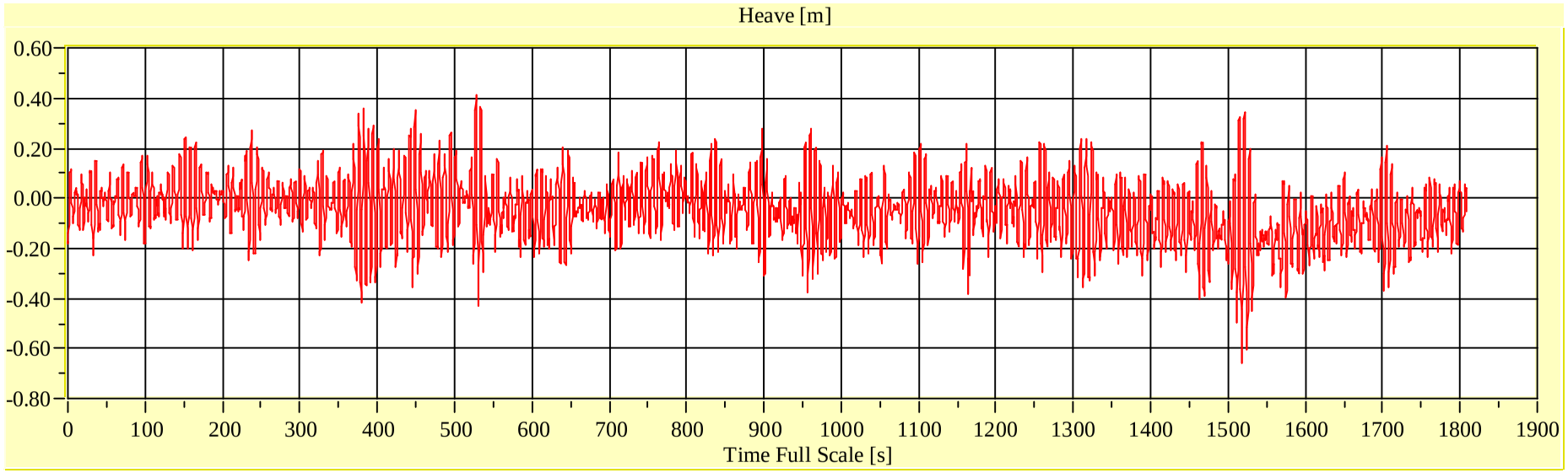


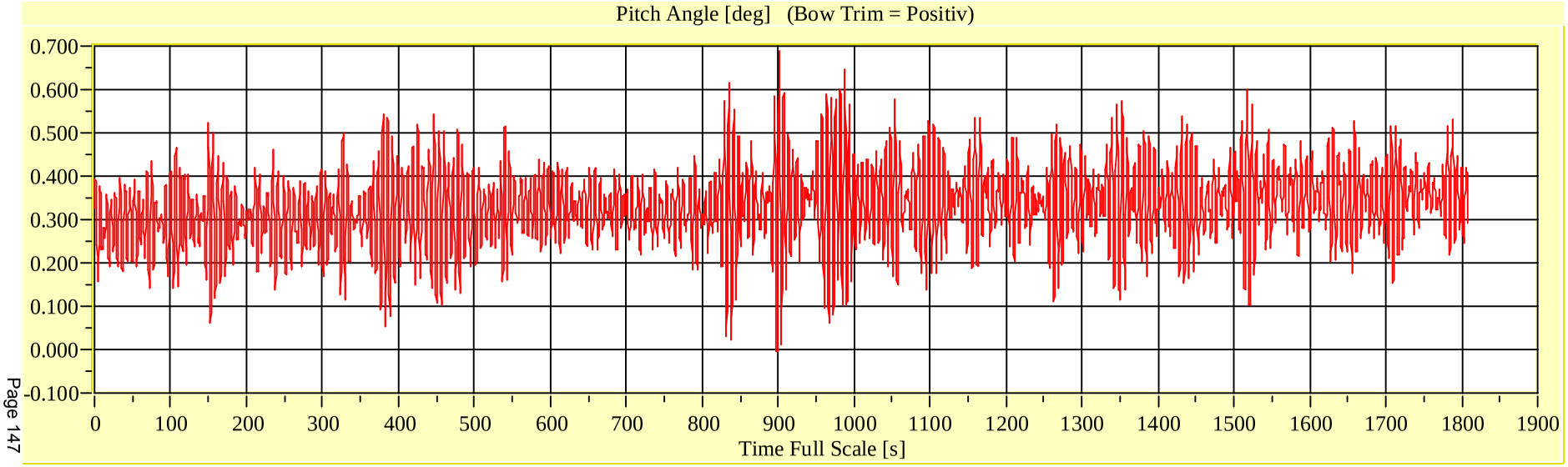


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-03	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

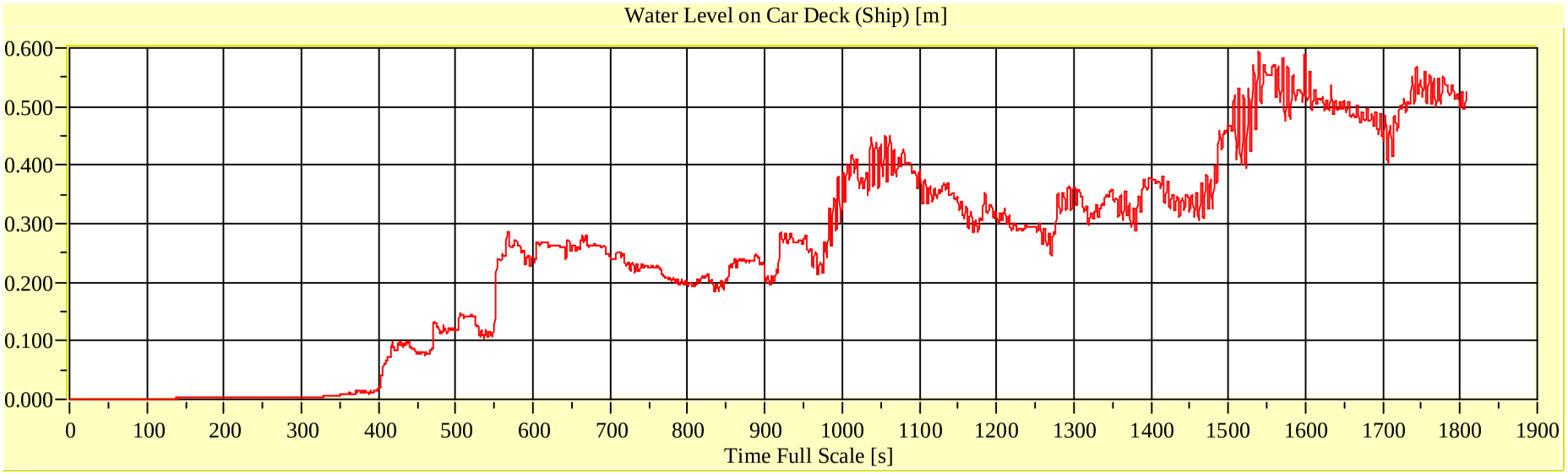


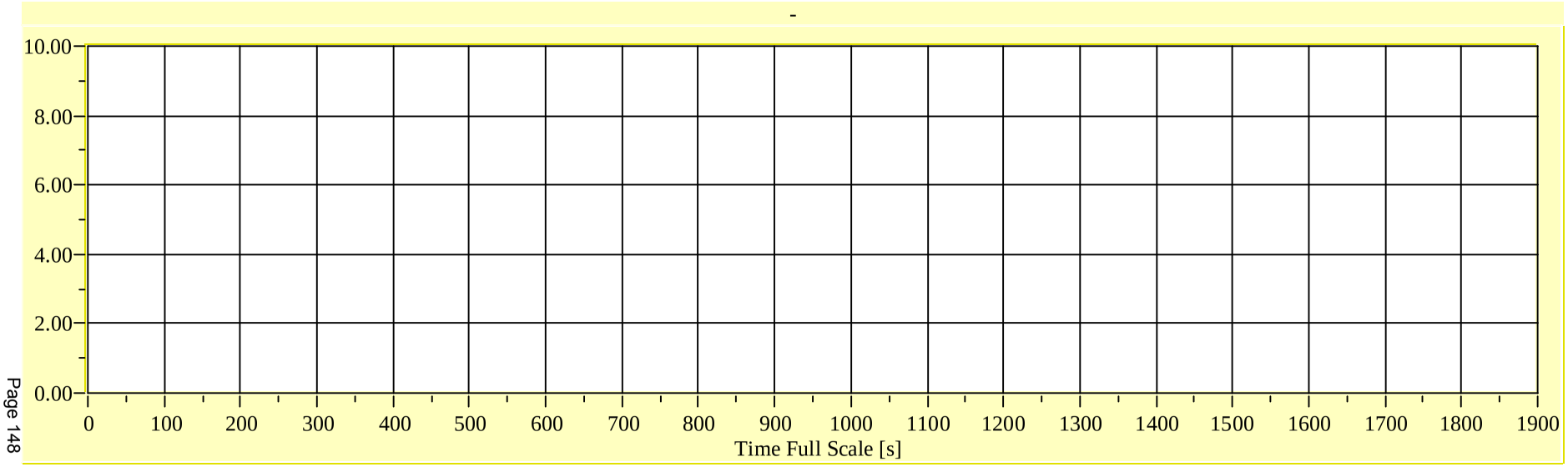


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-03	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3



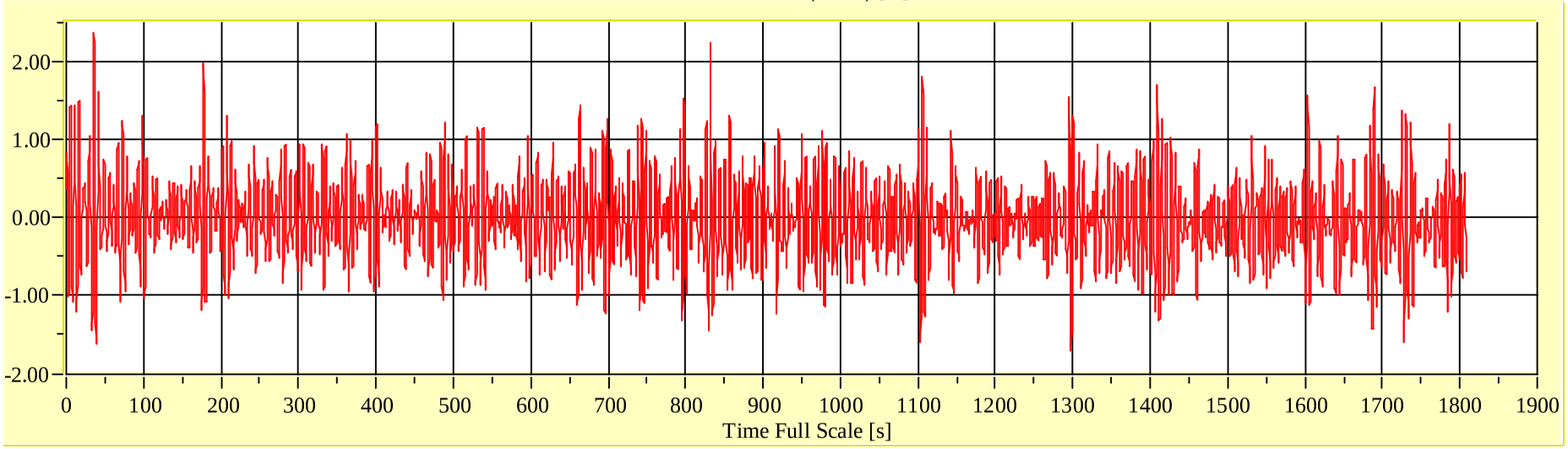


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

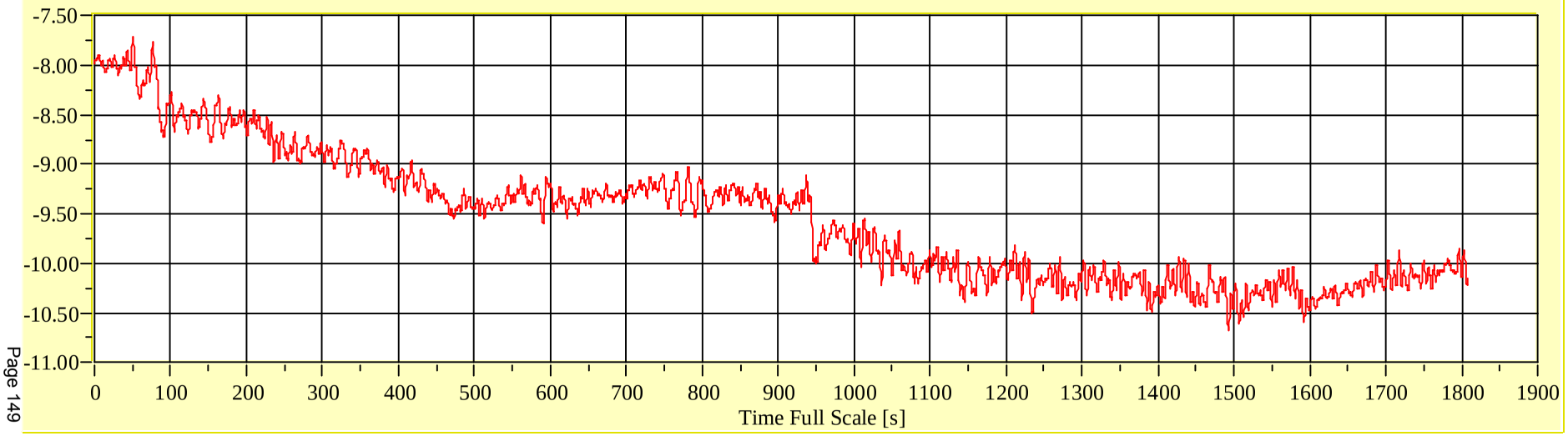
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-04	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

Wave Elevation (Fixed) [m]



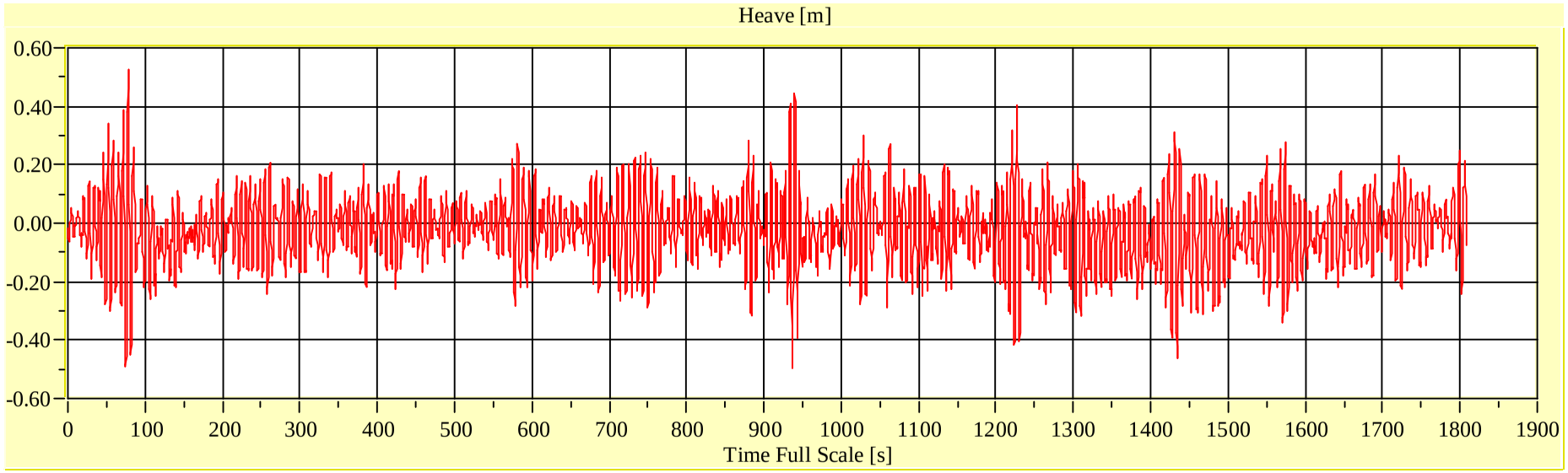
Roll Angle [deg] (to Starboard = Positiv)

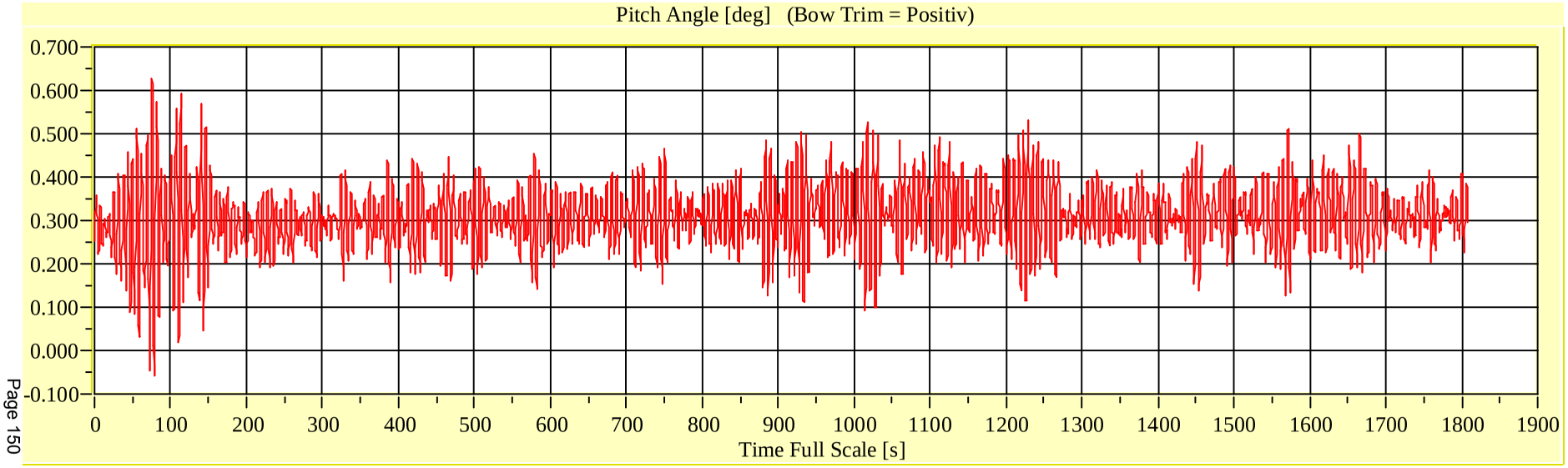


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-04	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

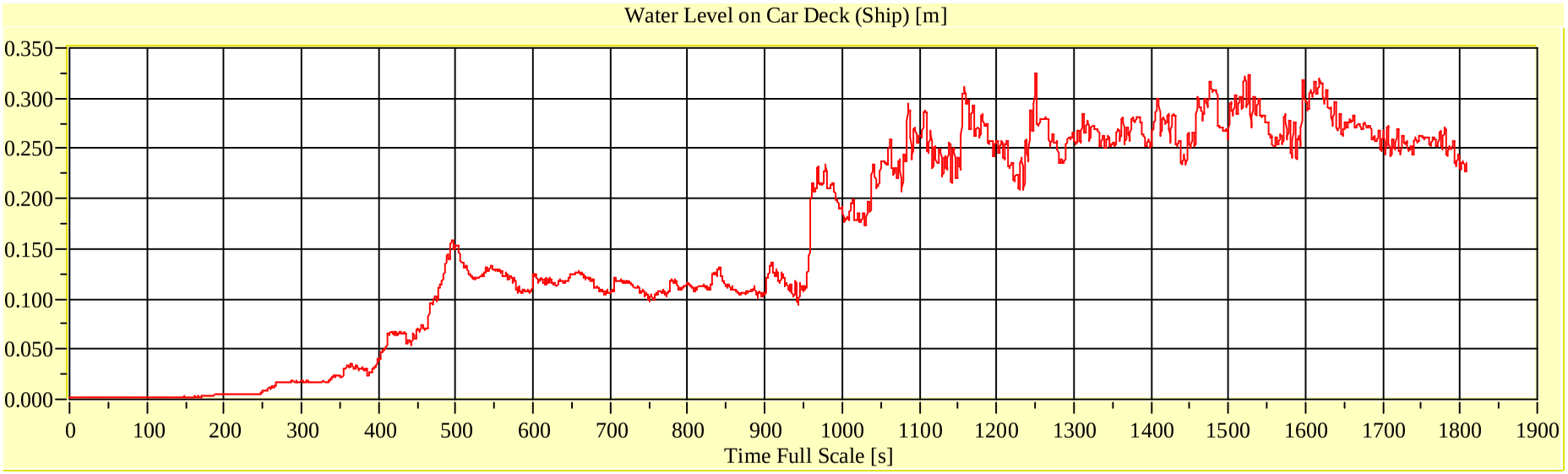


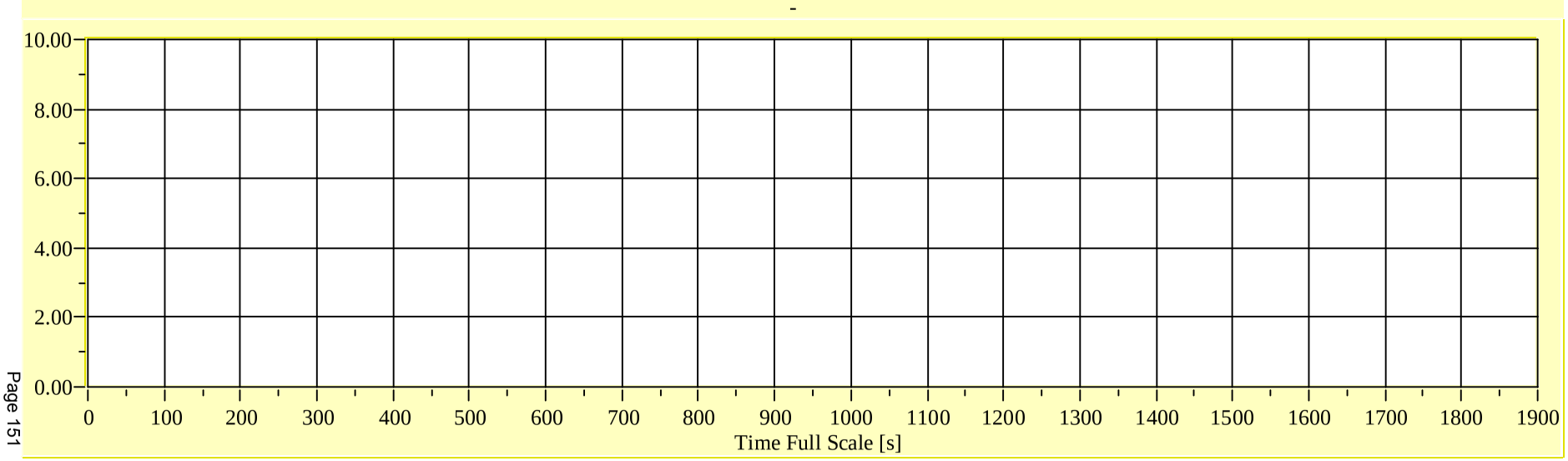


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-04	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

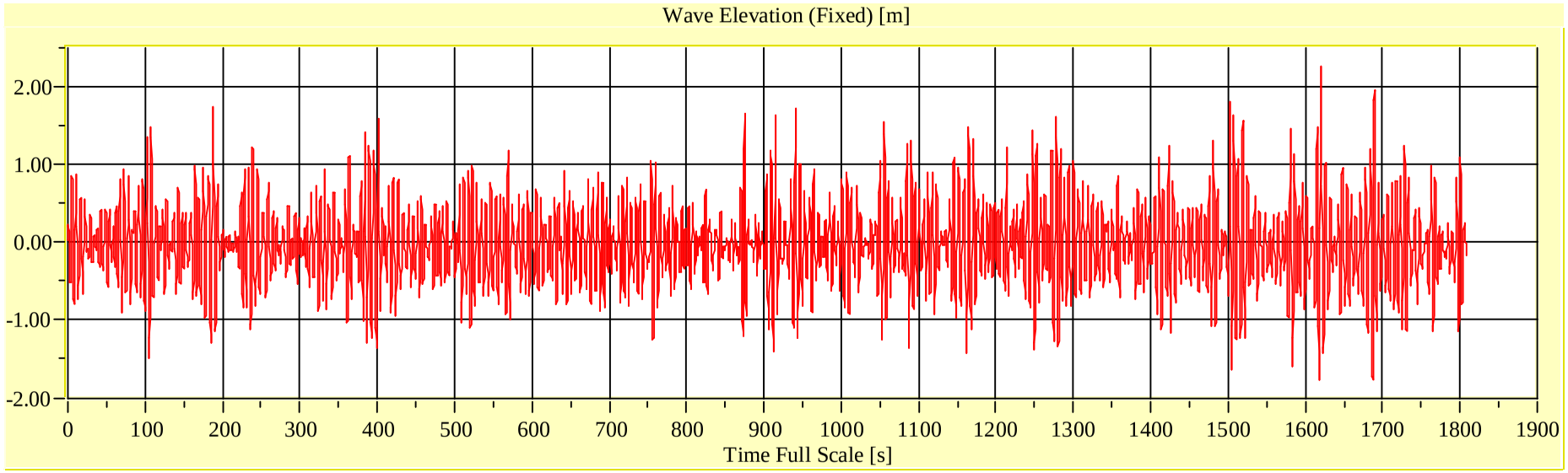


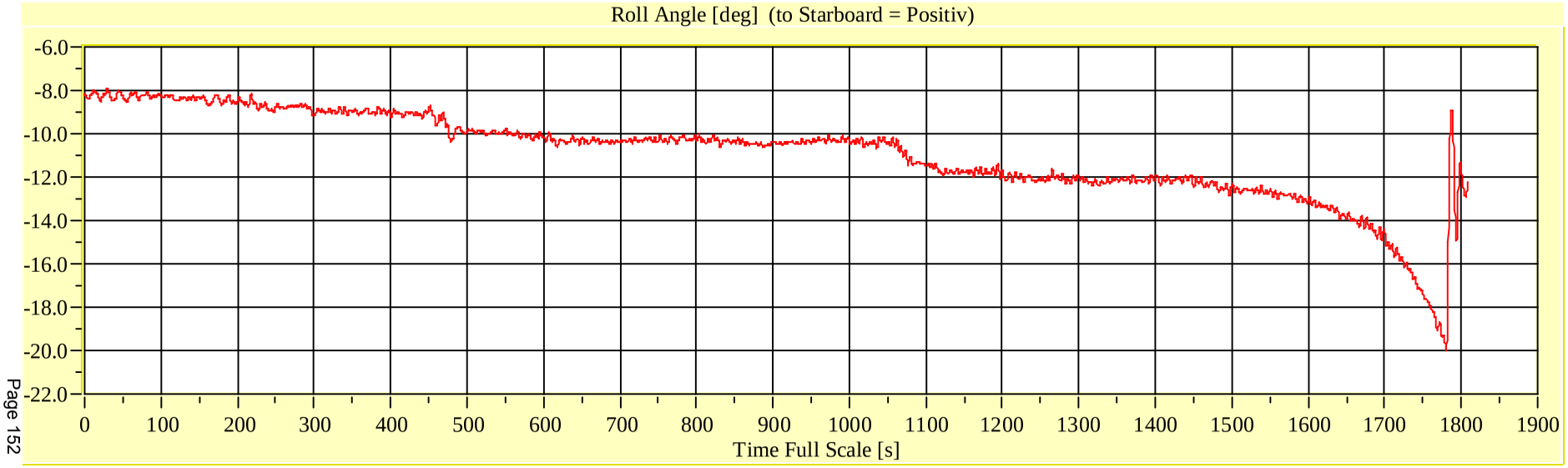


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-05	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

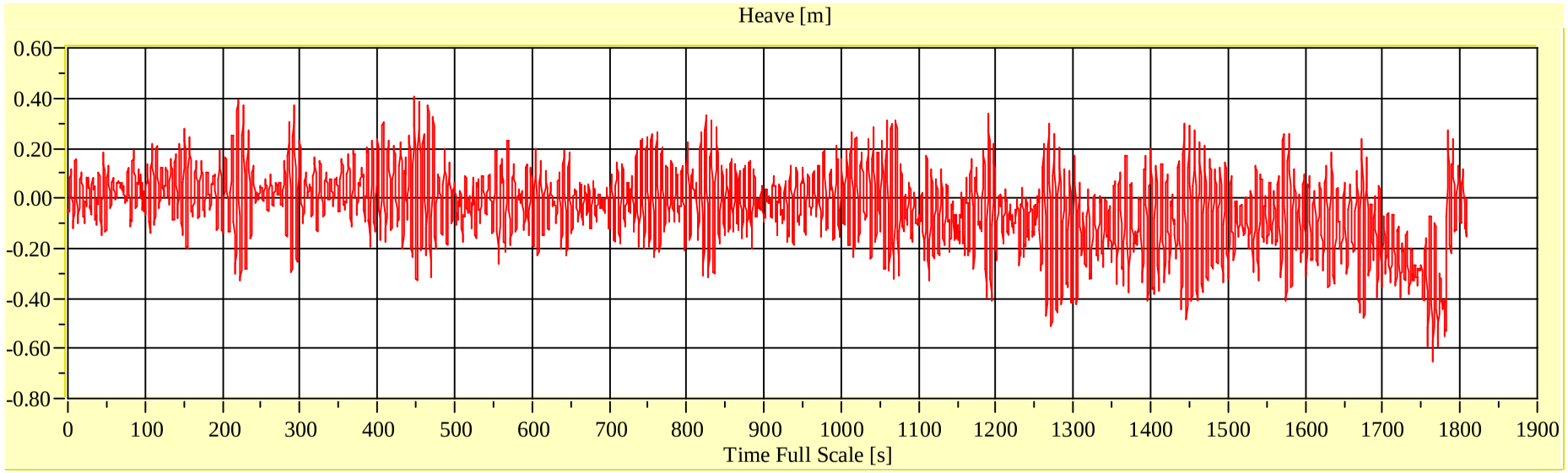


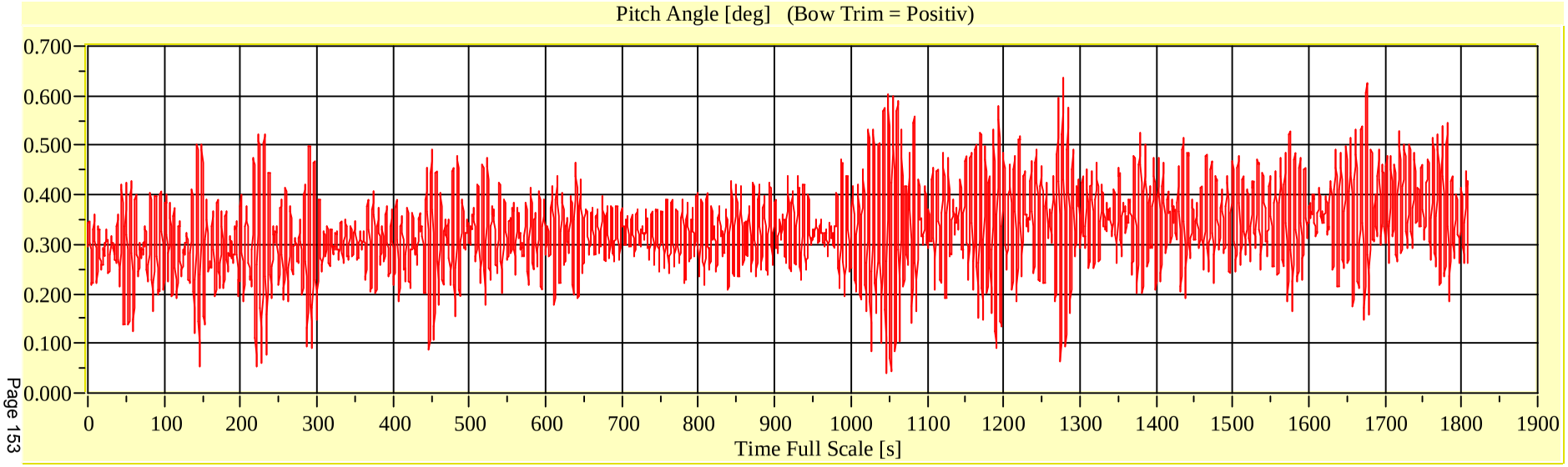


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-05	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

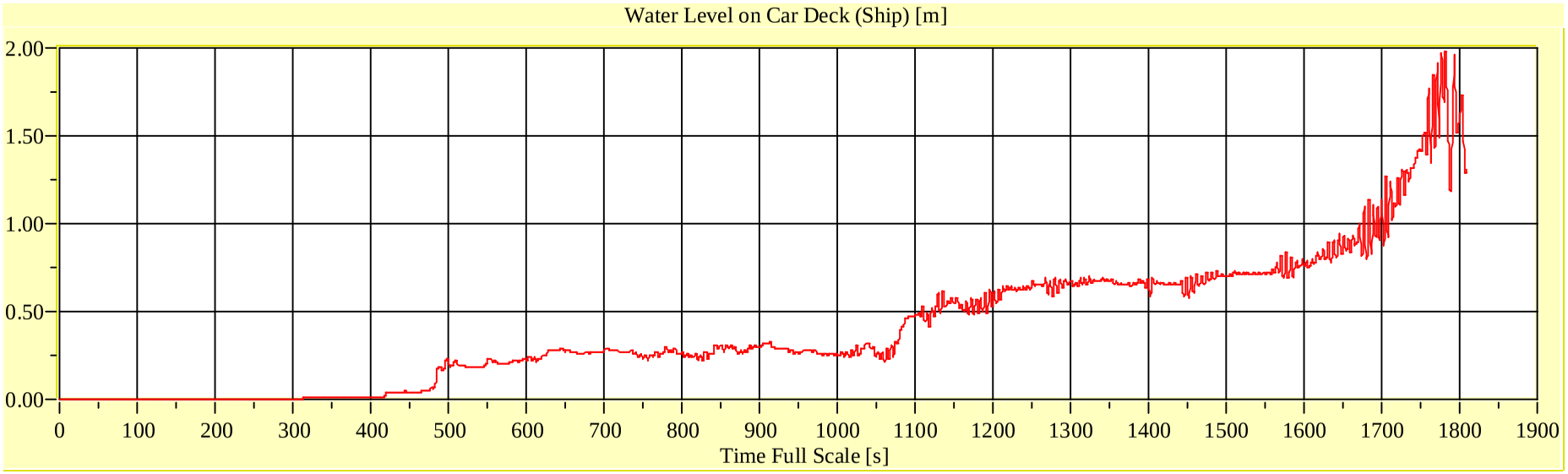


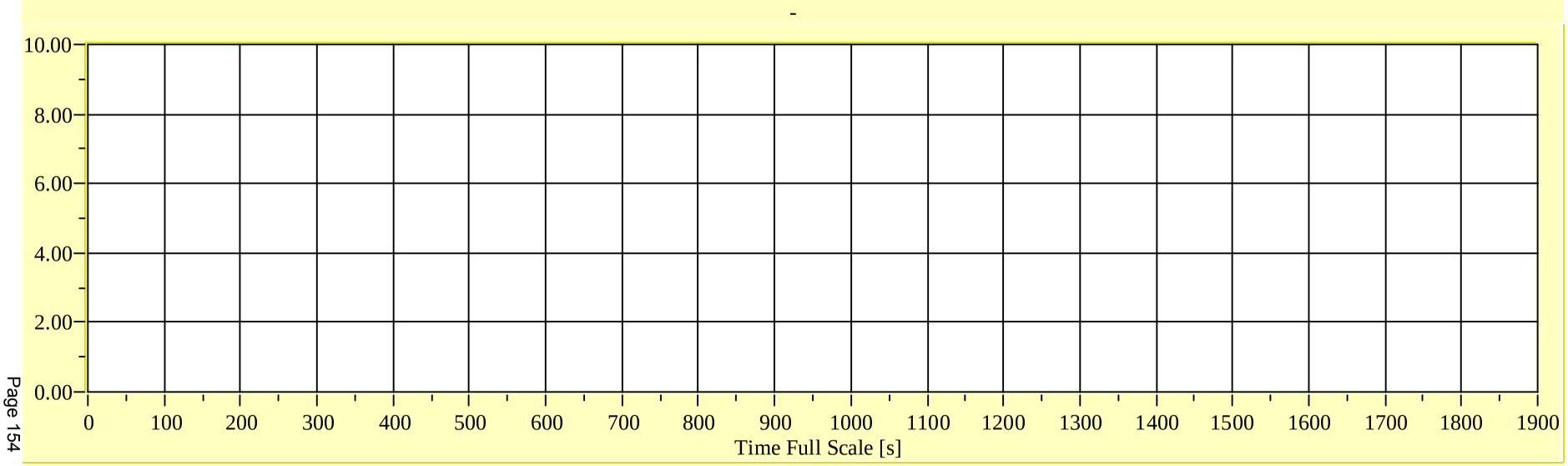


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29728-05	Target Waves: Hs = 2,0 m Tp = 5,6569 s	gamma = 3,3

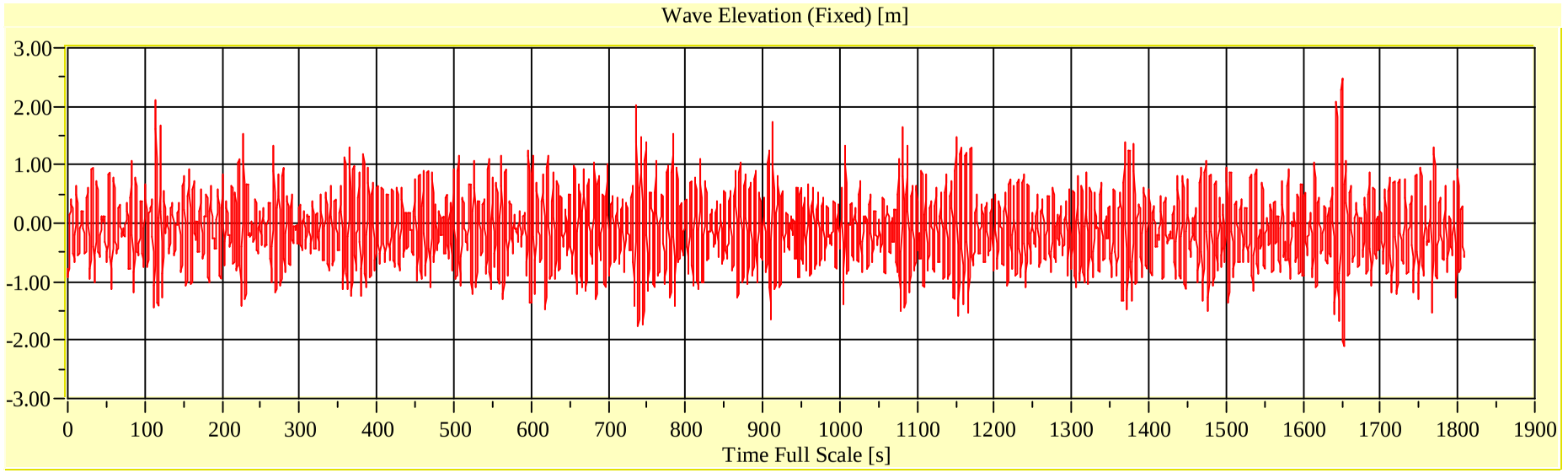


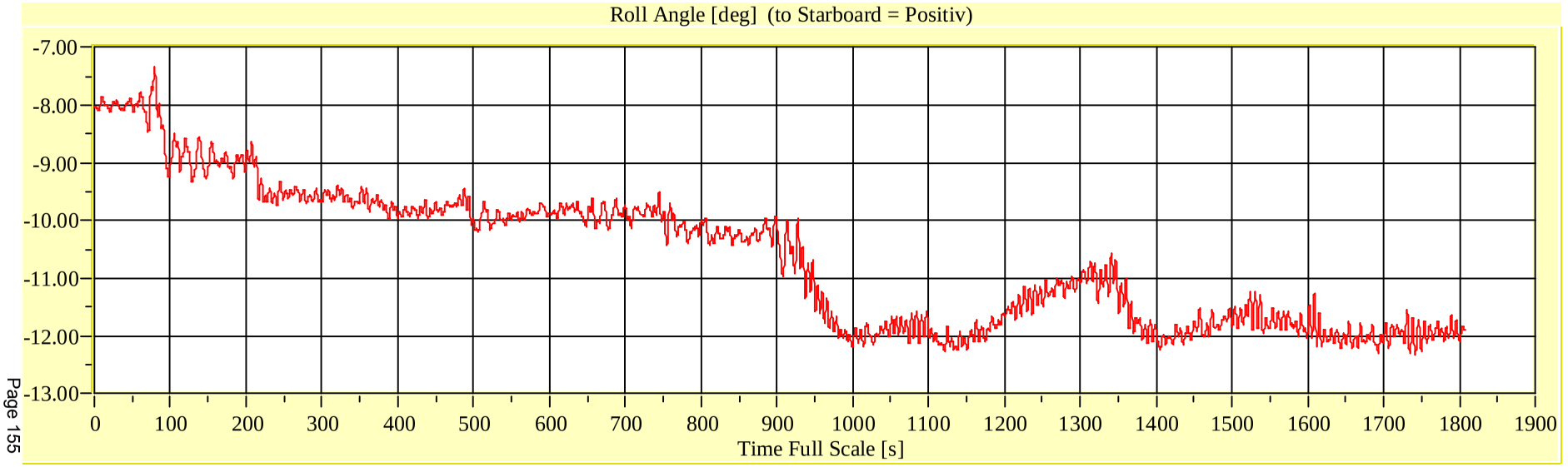


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-01	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

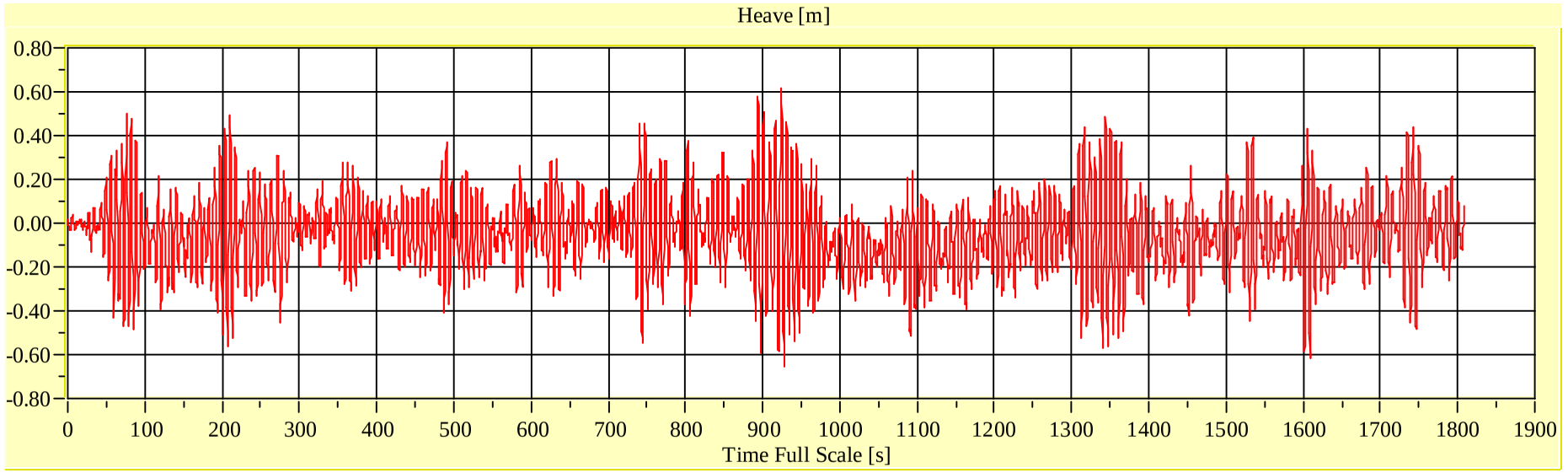


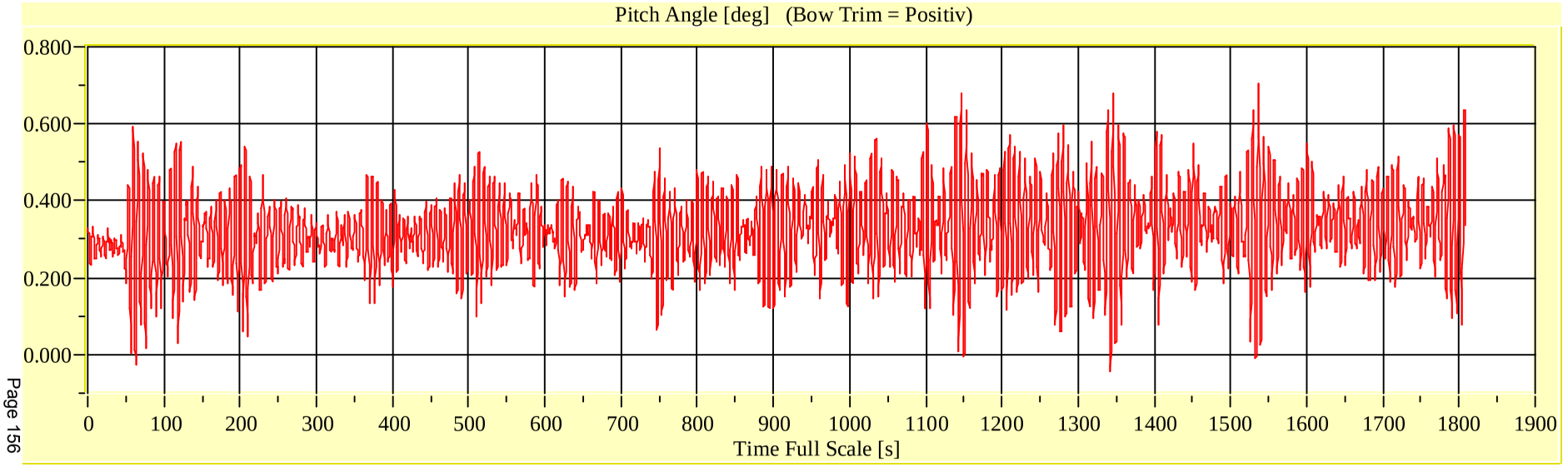


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-01	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

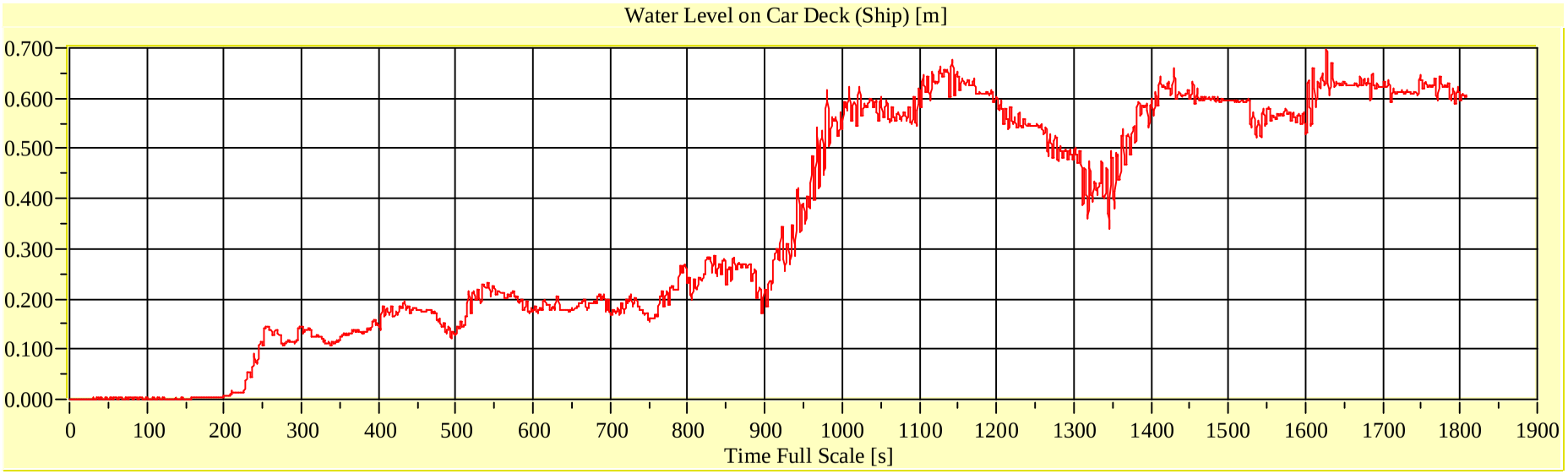


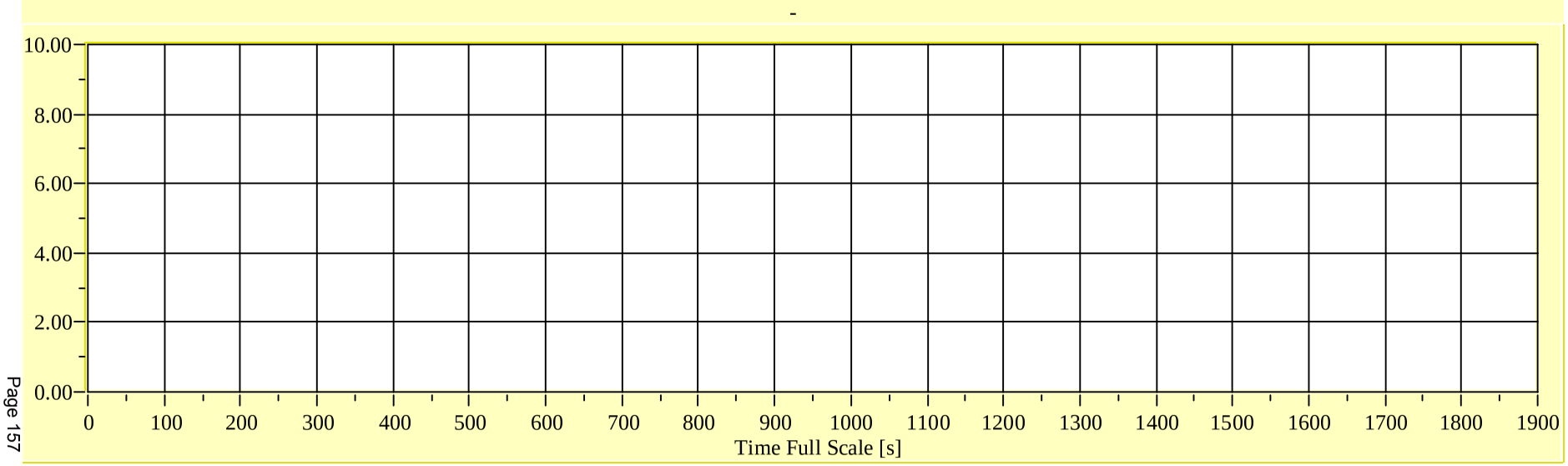


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-01	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

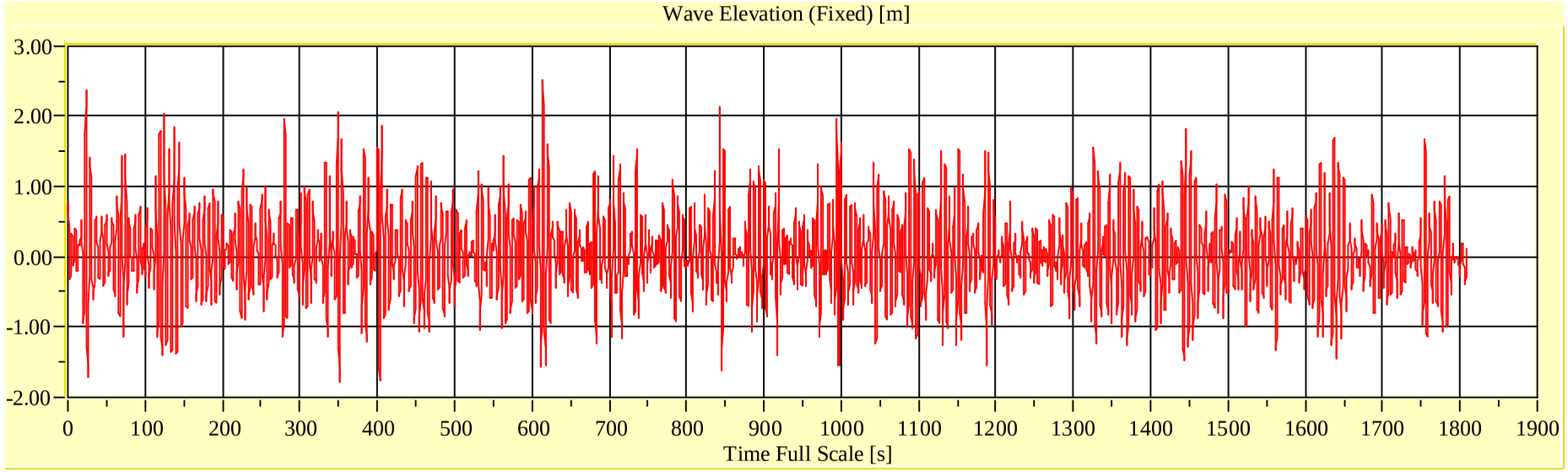


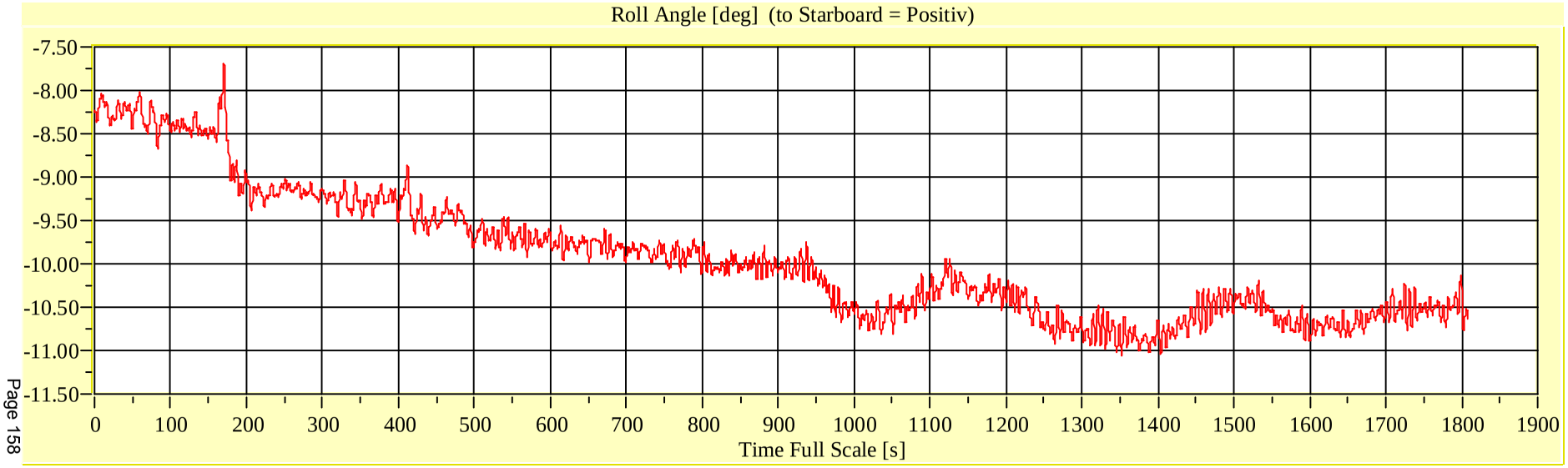


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-02	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

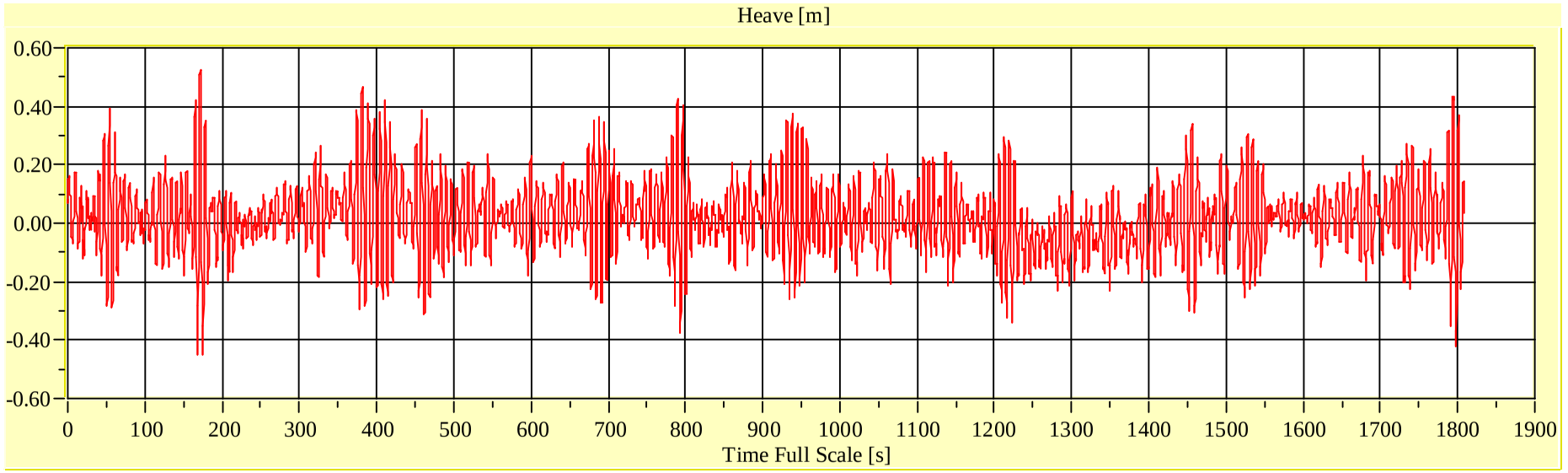


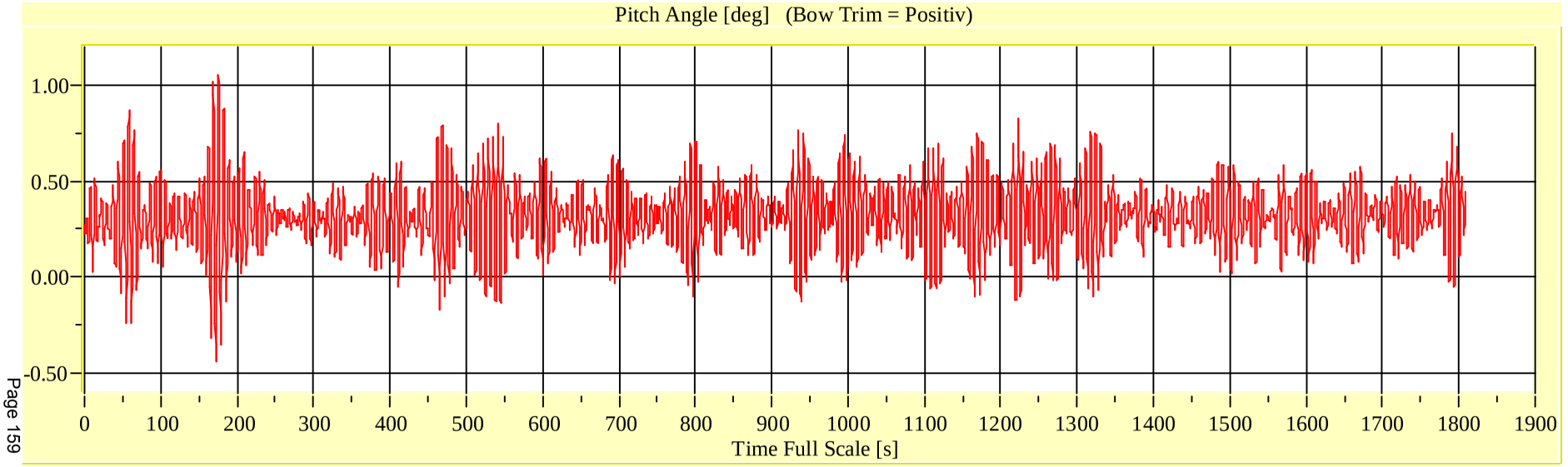


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-02	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

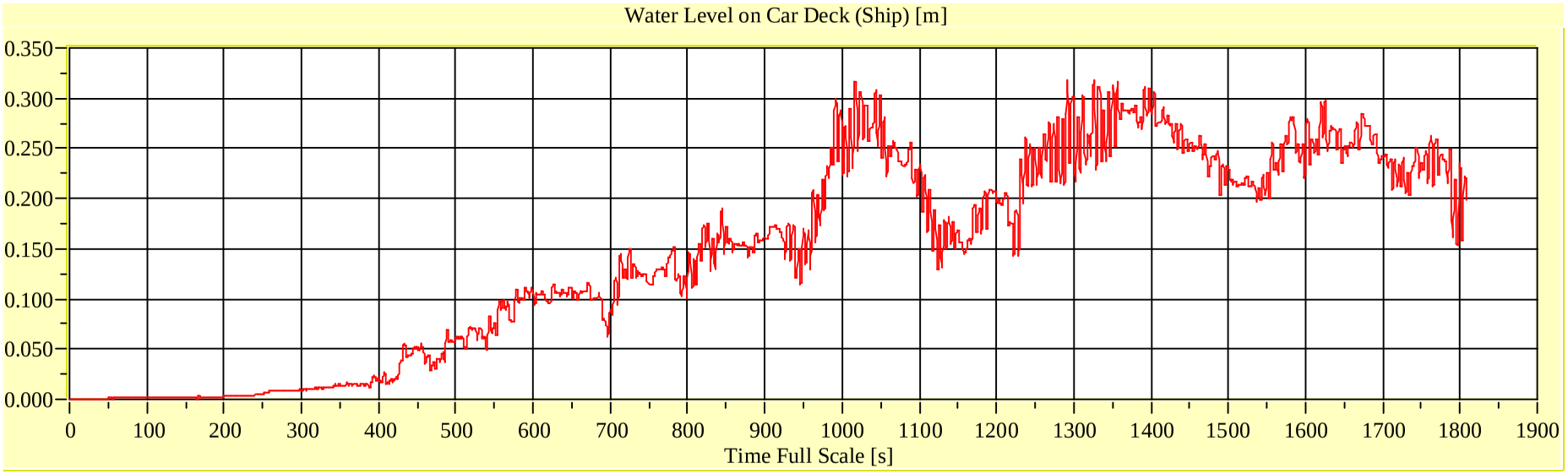


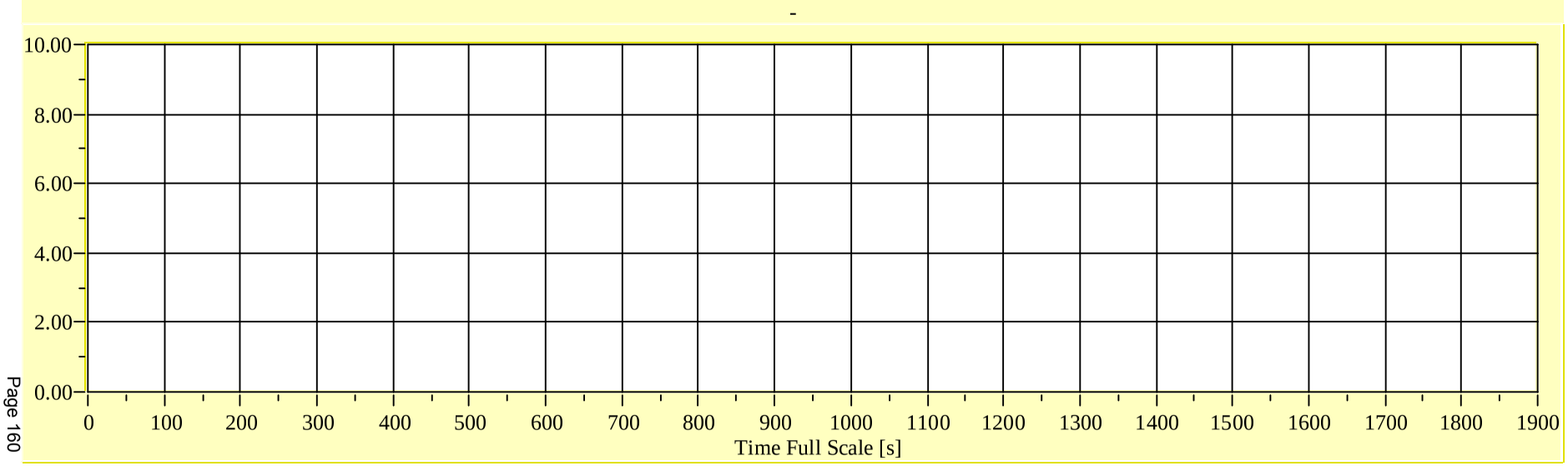


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-02	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3



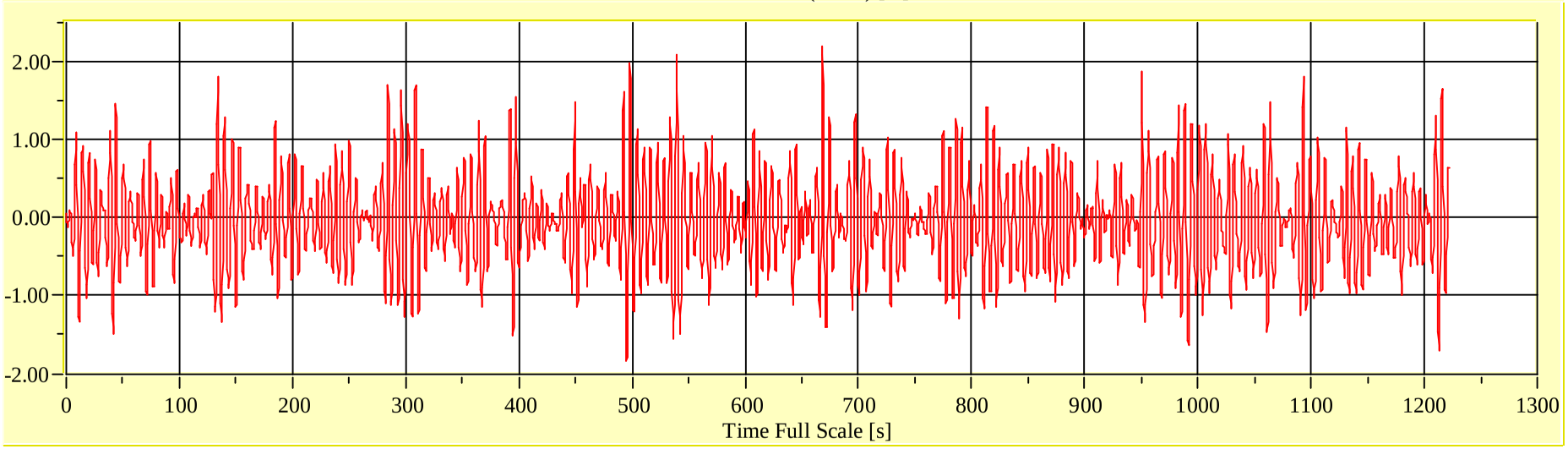


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

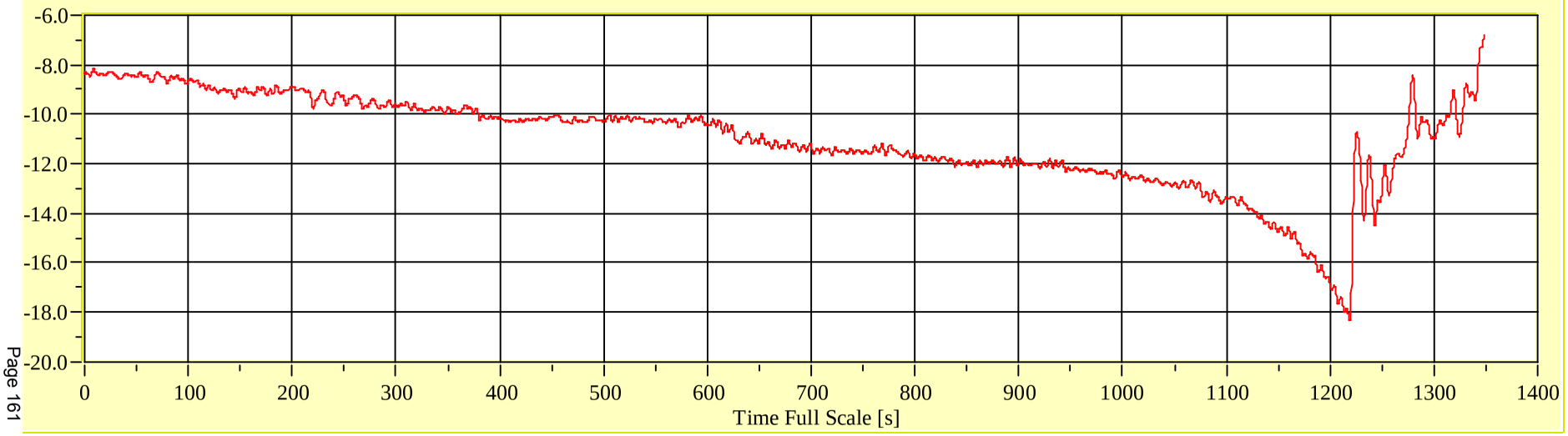
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-03	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

Wave Elevation (Fixed) [m]



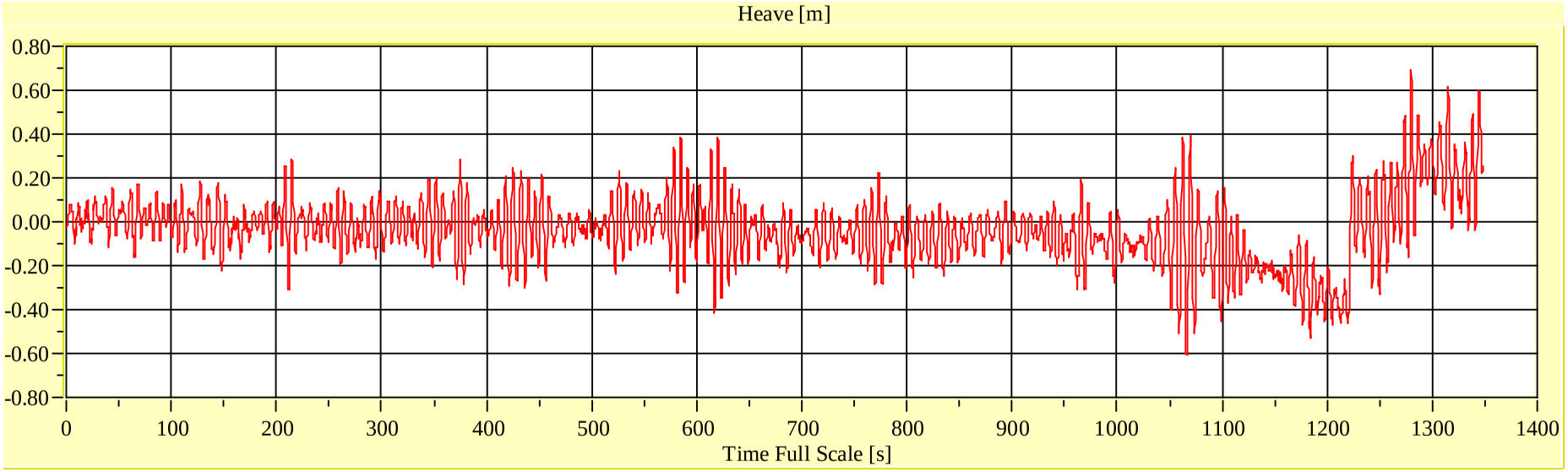
Roll Angle [deg] (to Starboard = Positiv)

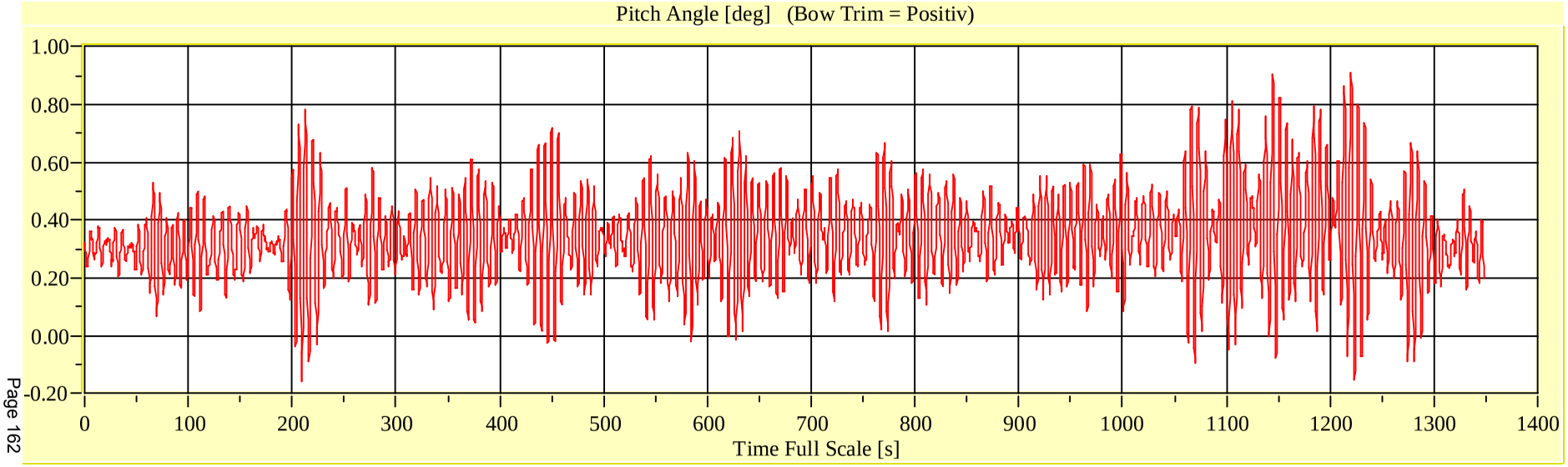


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-03	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

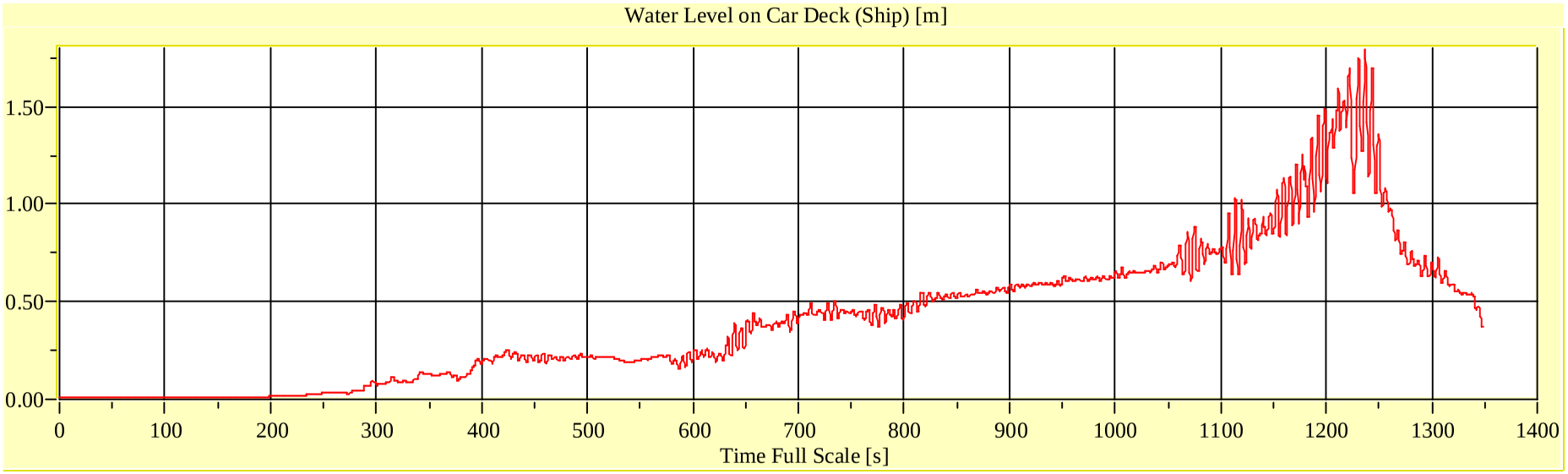


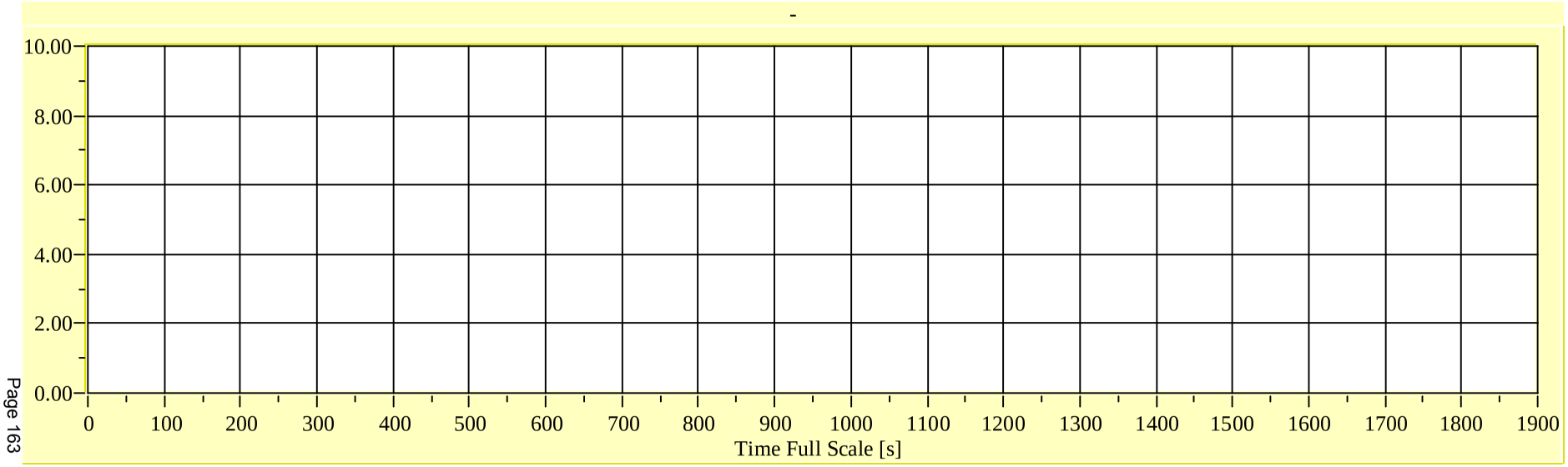


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-03	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

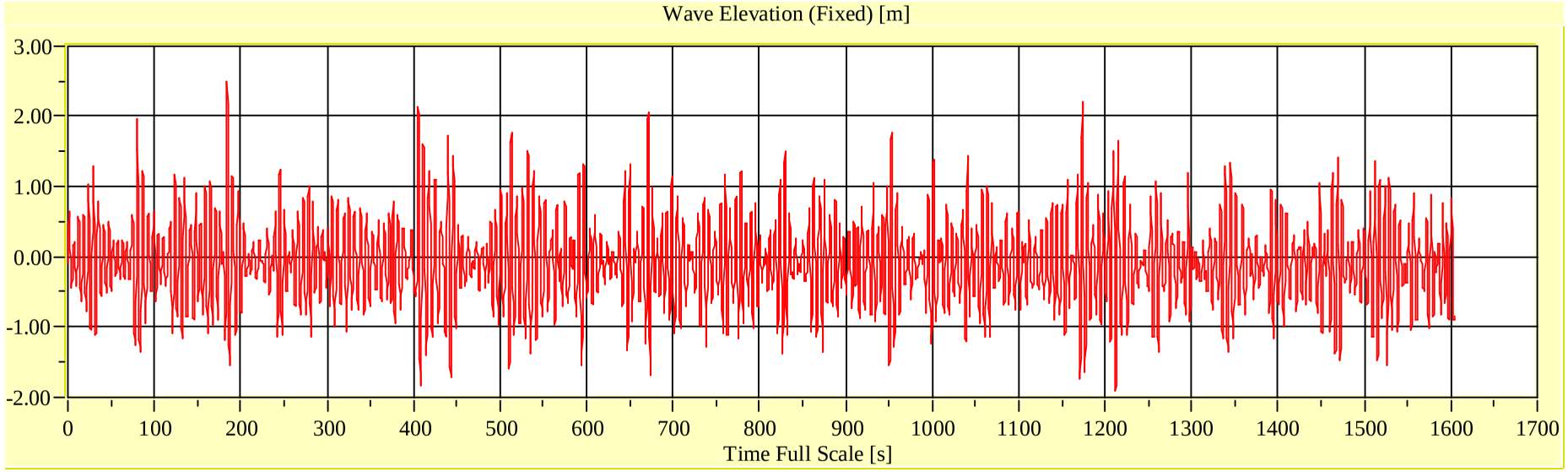


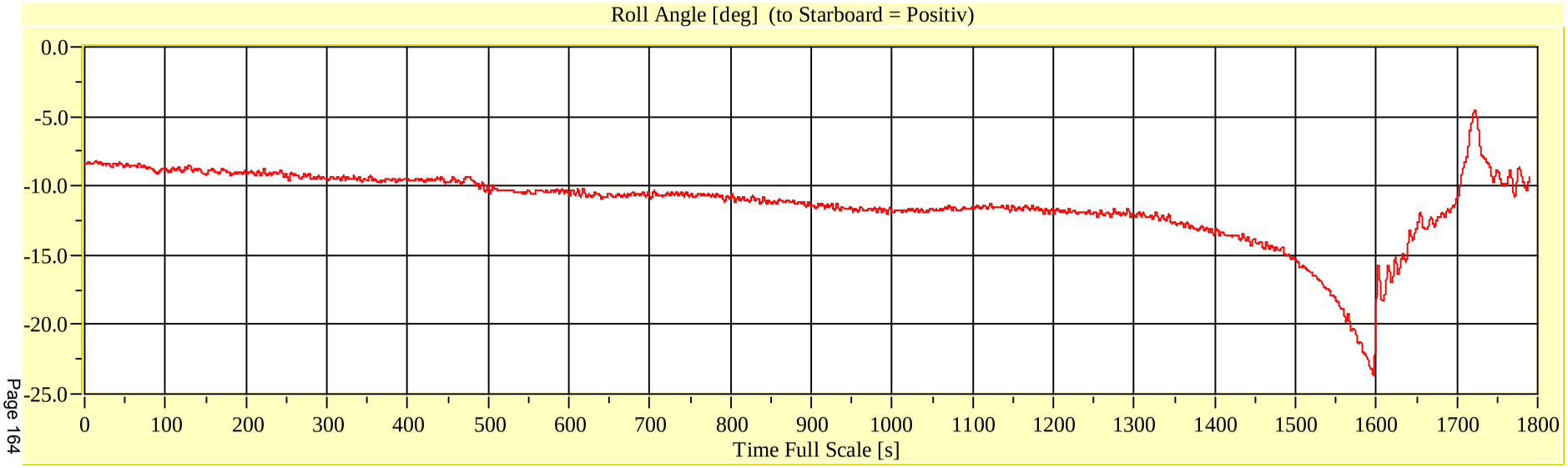


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-04	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3



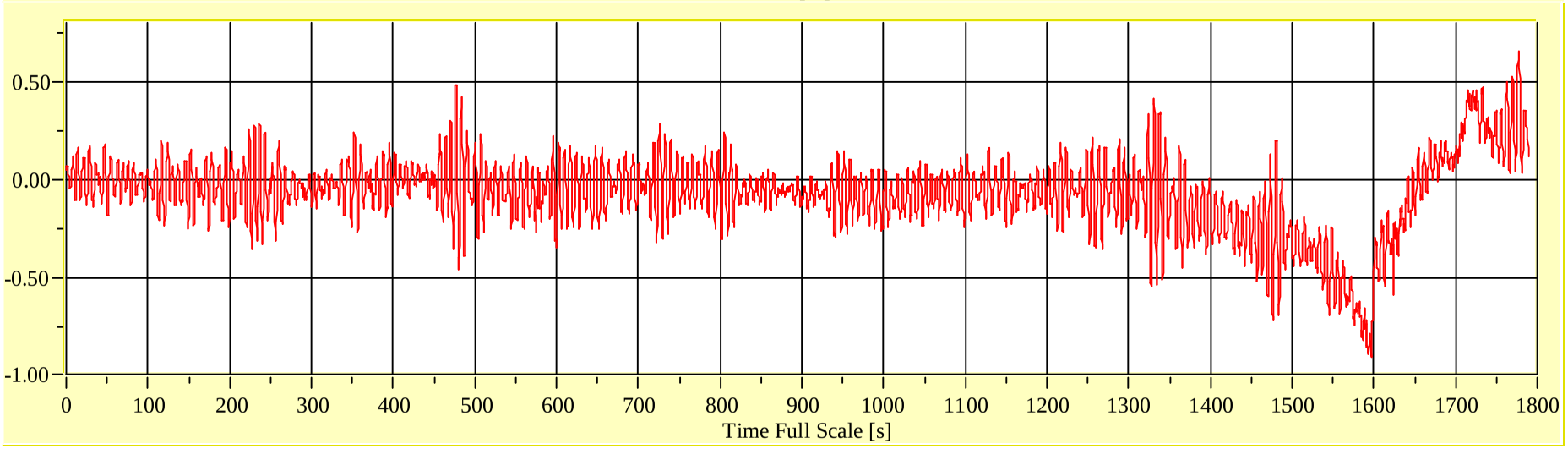


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

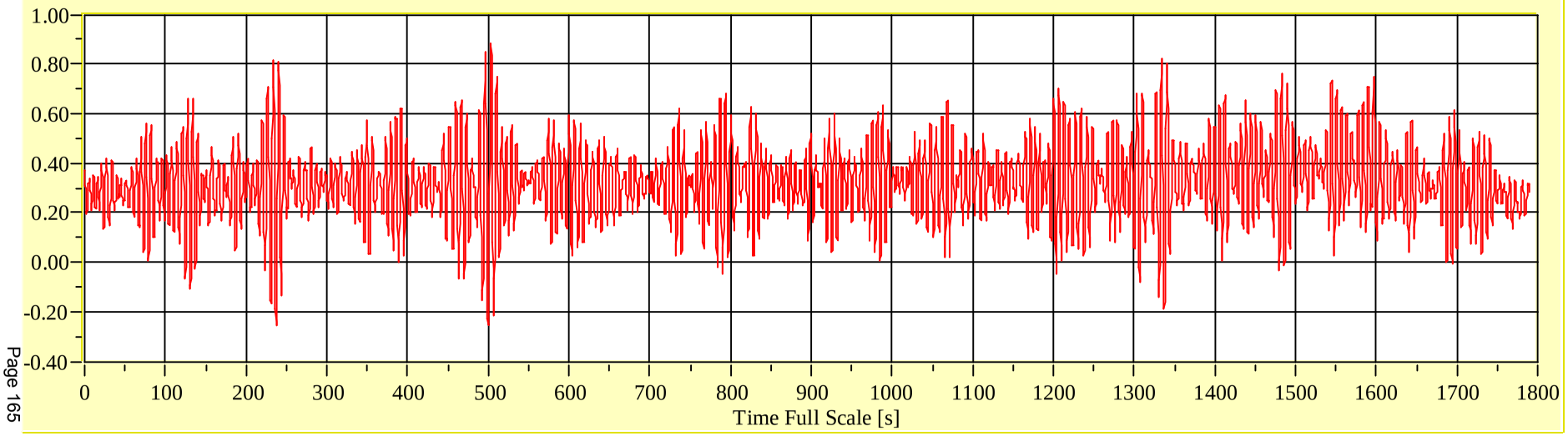
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-04	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

Heave [m]



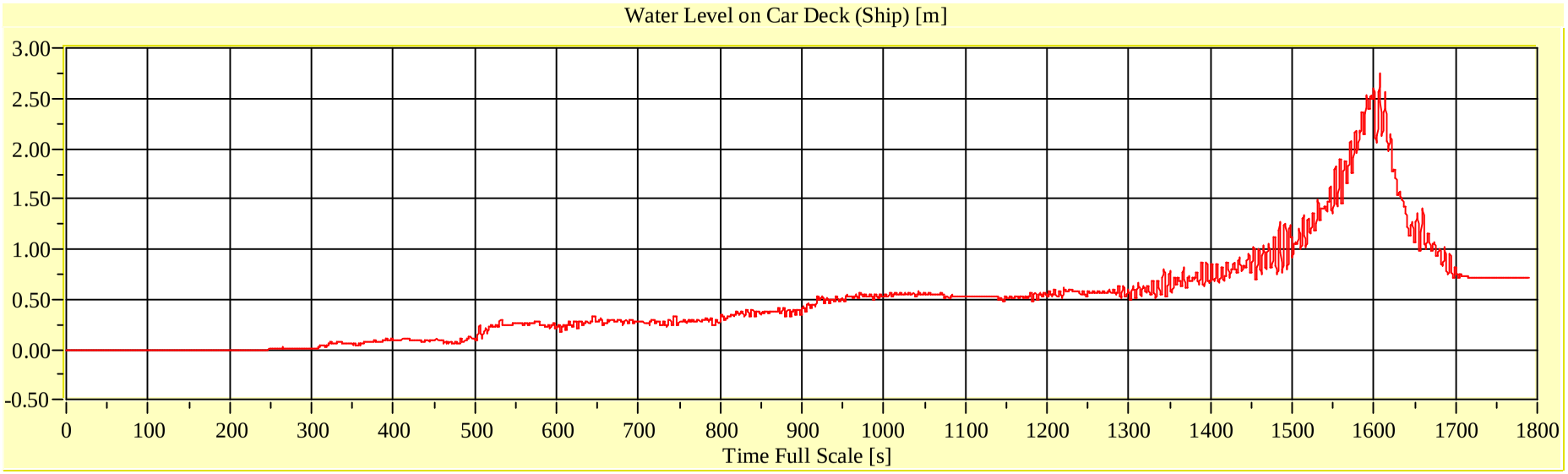
Pitch Angle [deg] (Bow Trim = Positiv)

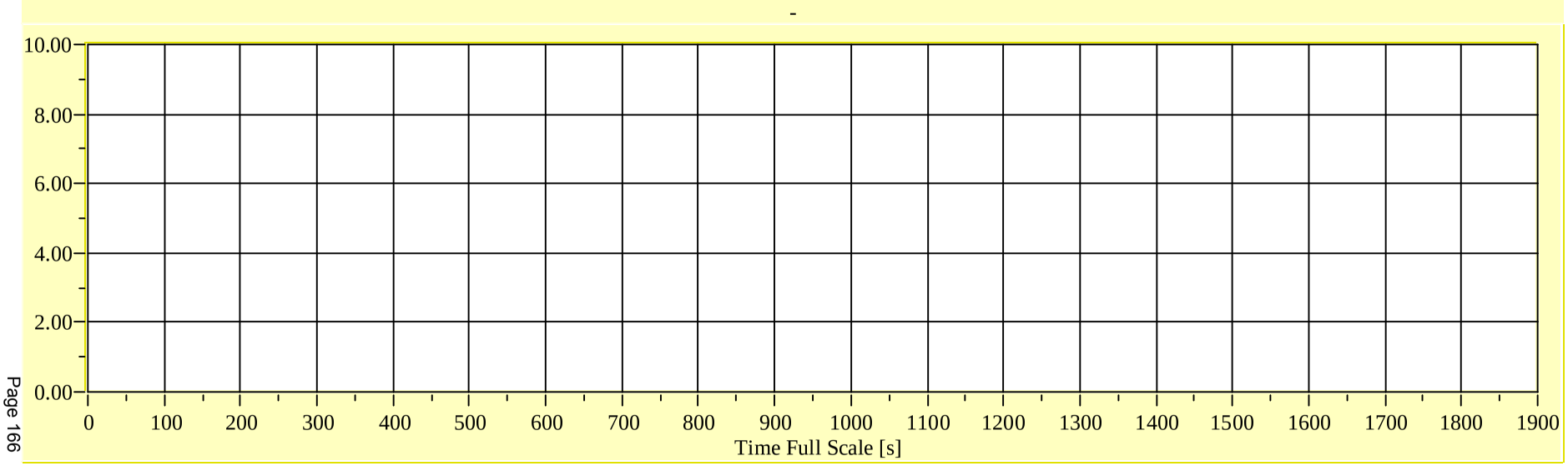


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-04	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3



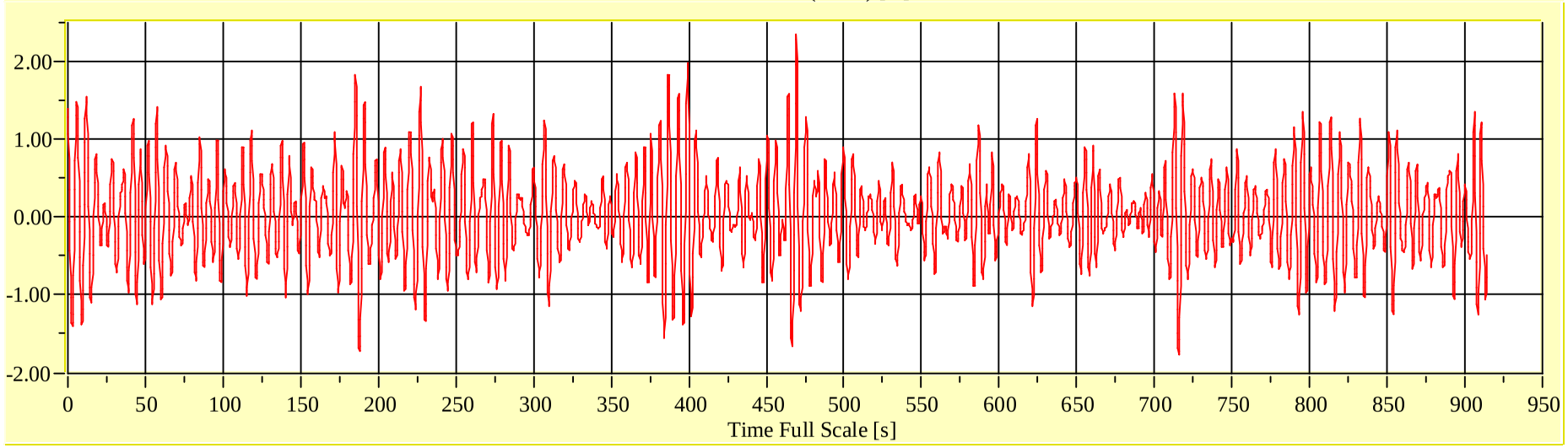


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

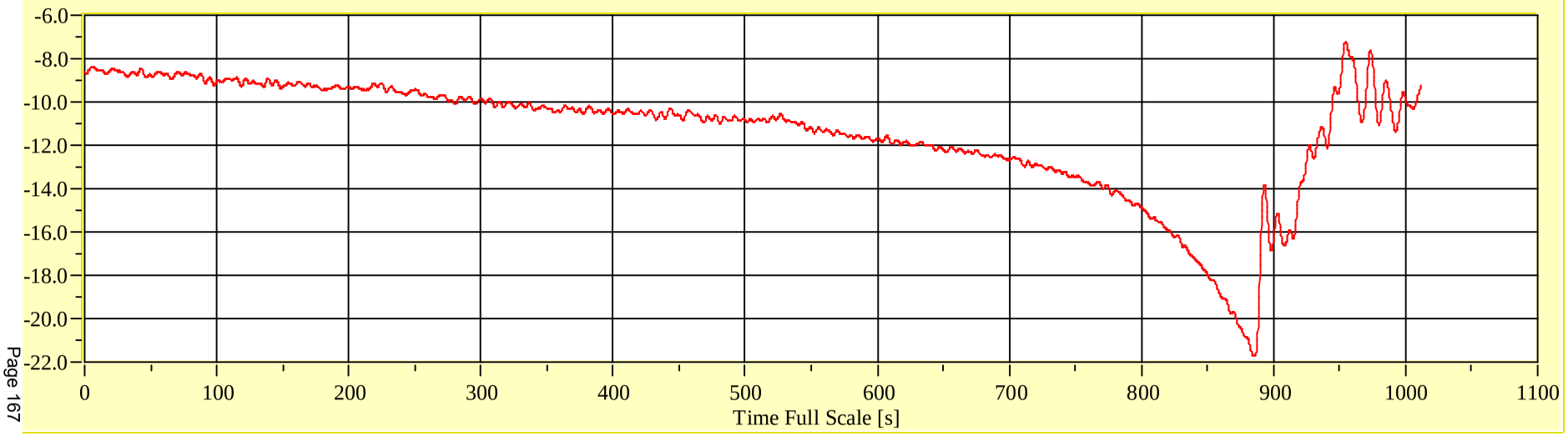
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-05	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

Wave Elevation (Fixed) [m]



Roll Angle [deg] (to Starboard = Positiv)

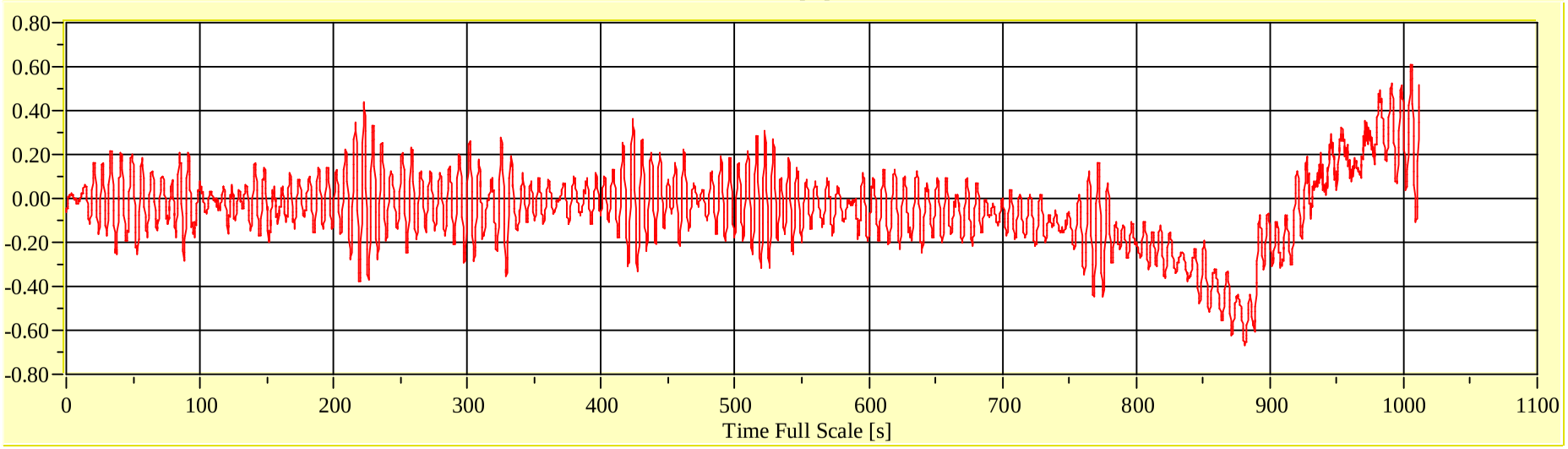


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

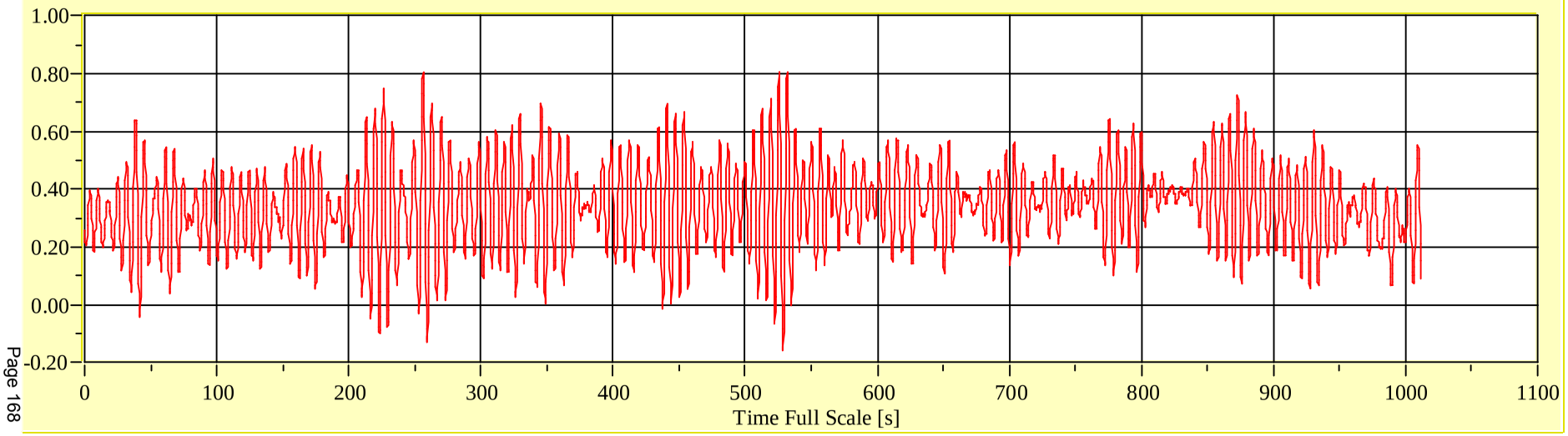
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-05	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

Heave [m]



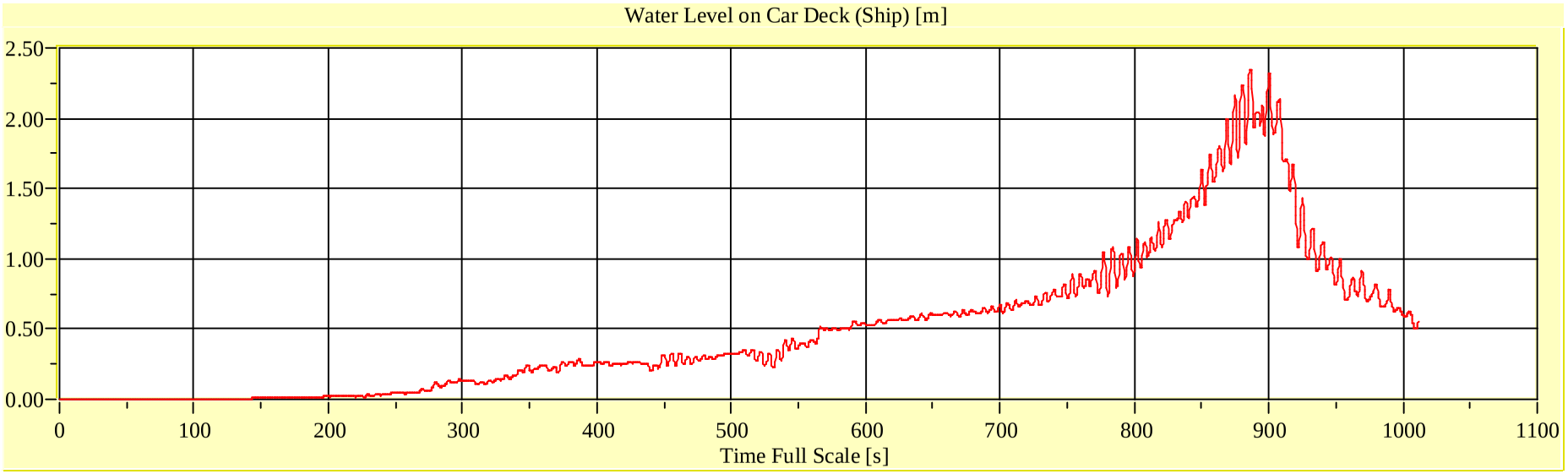
Pitch Angle [deg] (Bow Trim = Positiv)

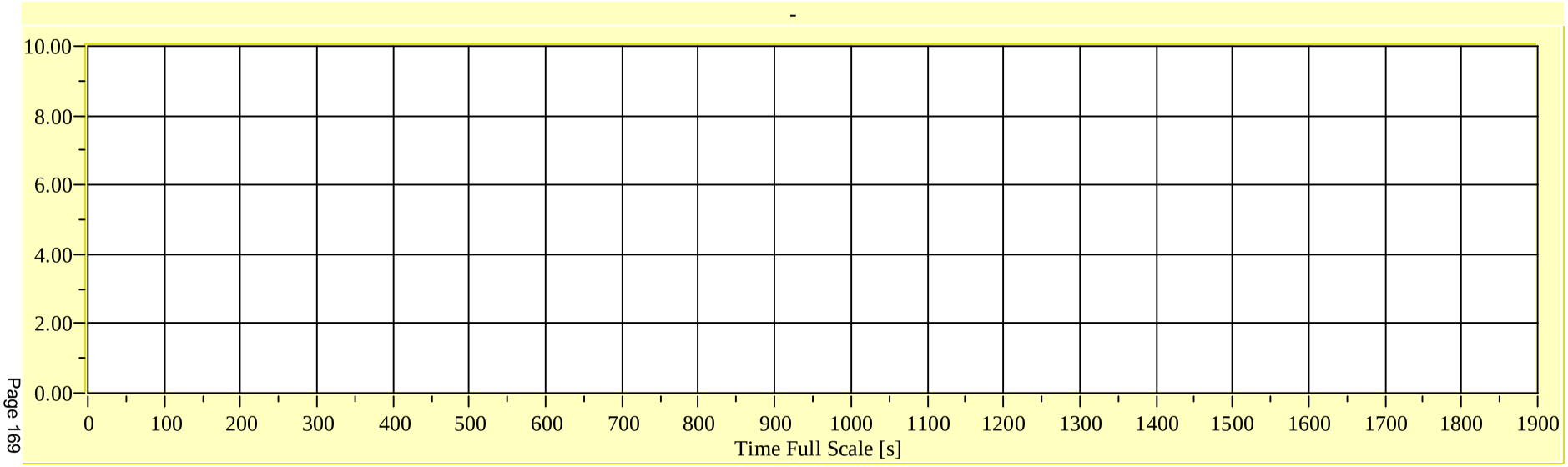


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-05	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3



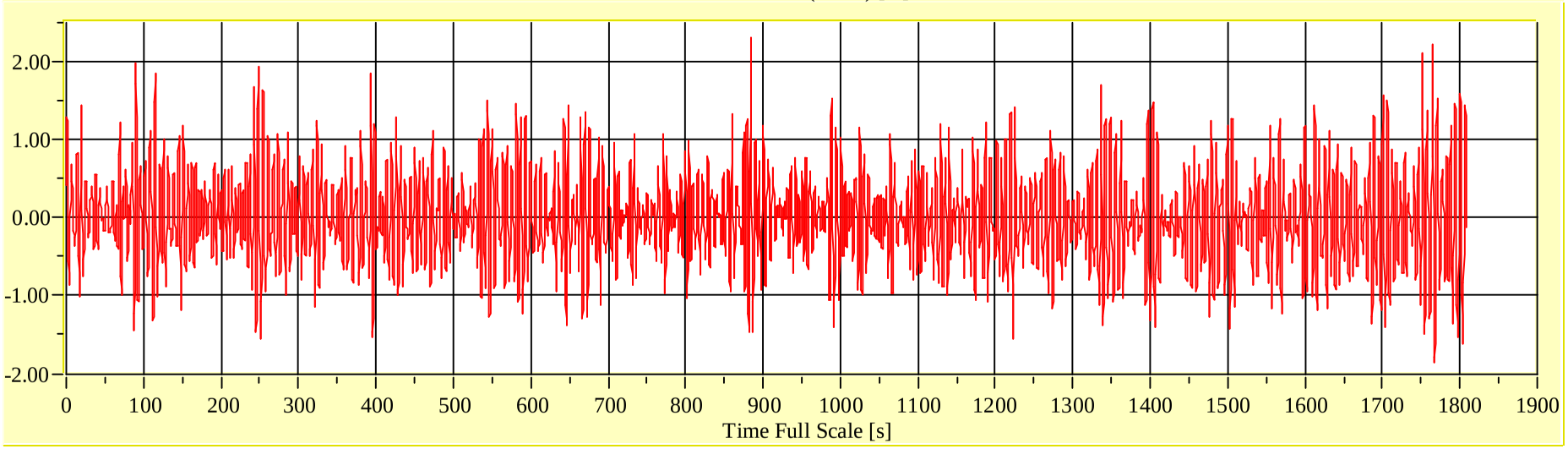


Date: 25.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

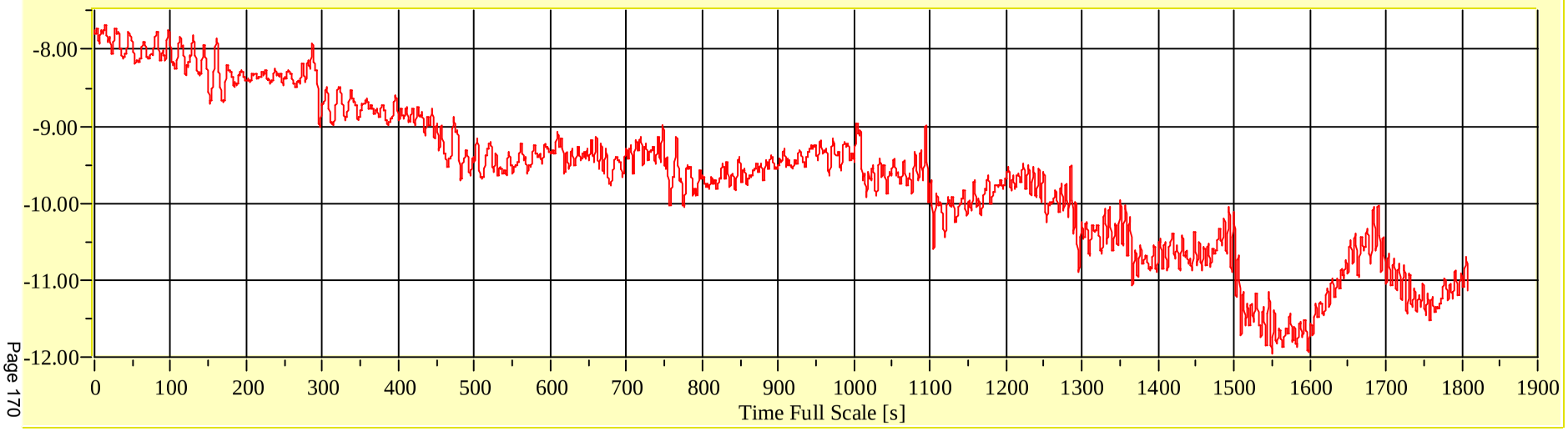
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-06	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

Wave Elevation (Fixed) [m]



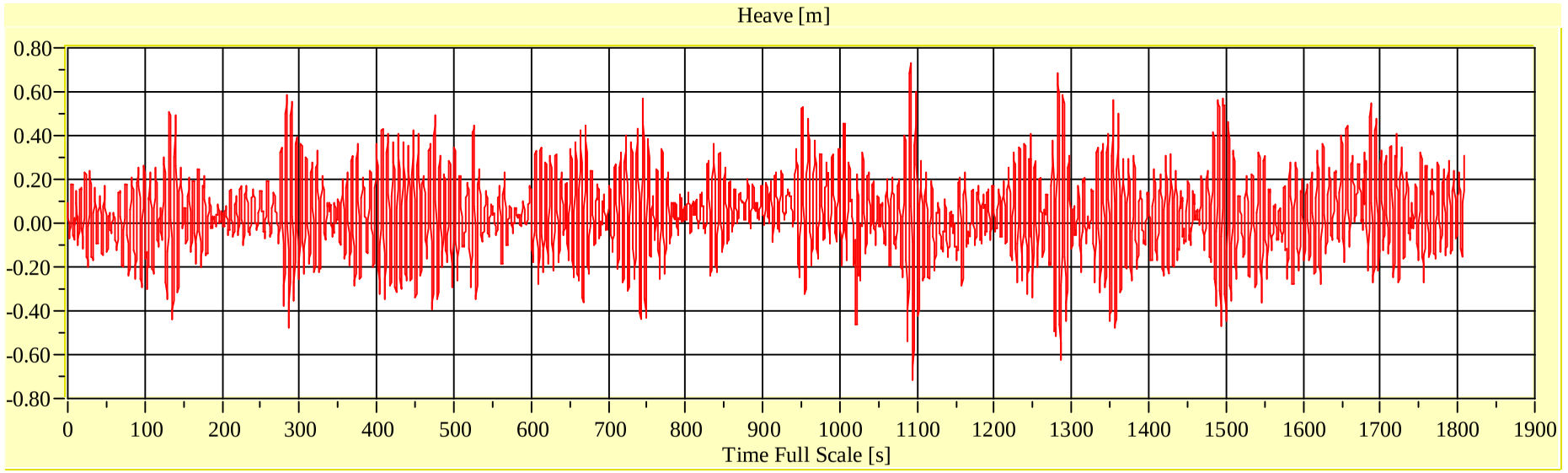
Roll Angle [deg] (to Starboard = Positiv)

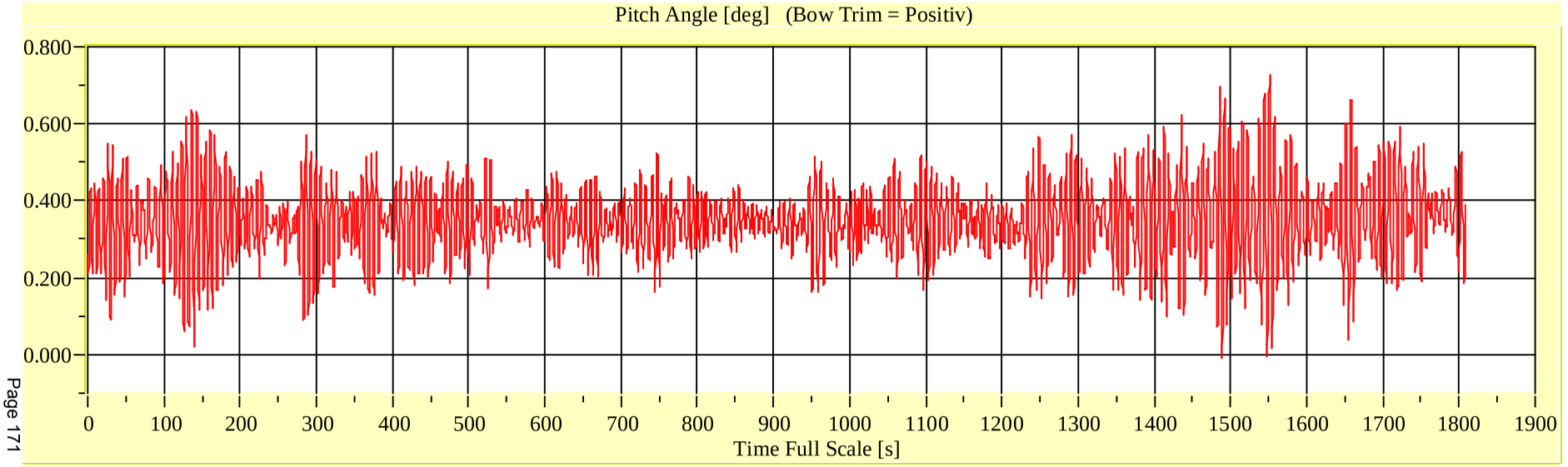


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-06	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

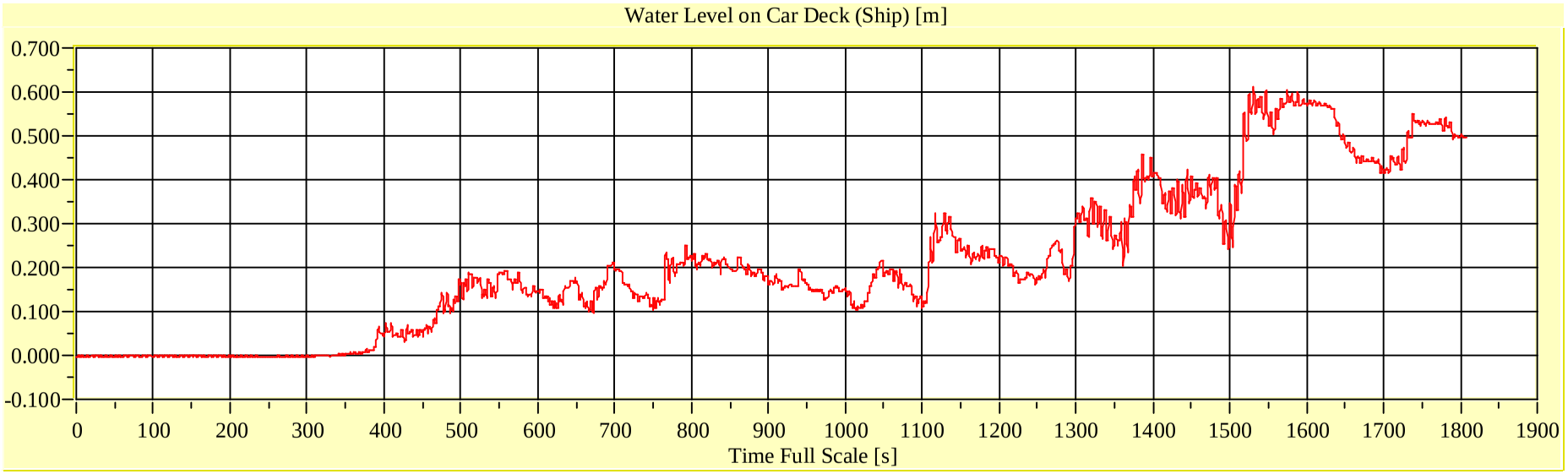




Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-06	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3



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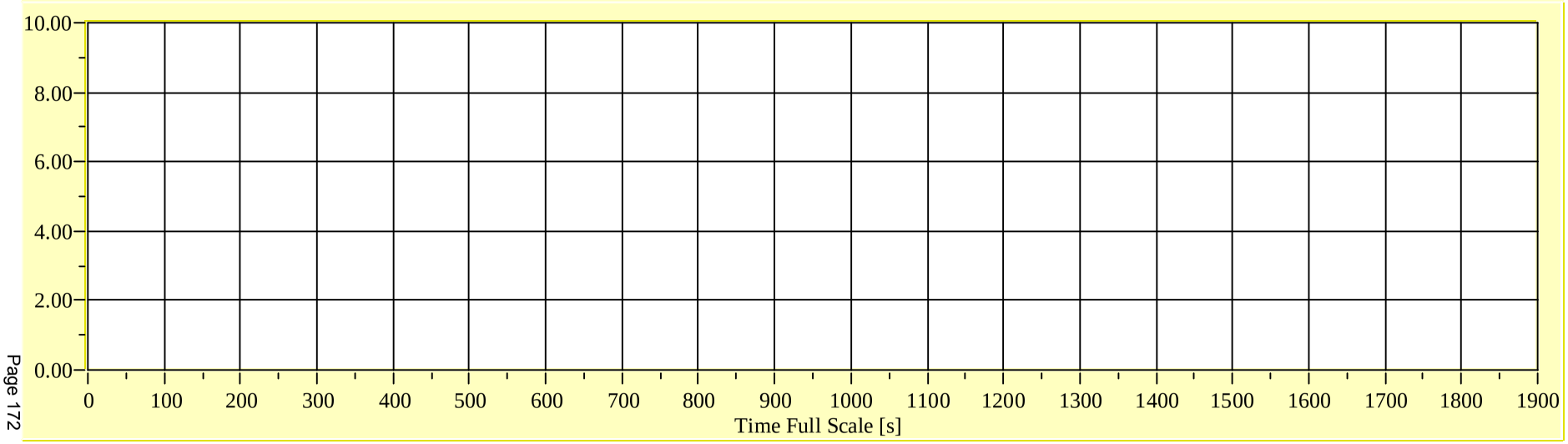
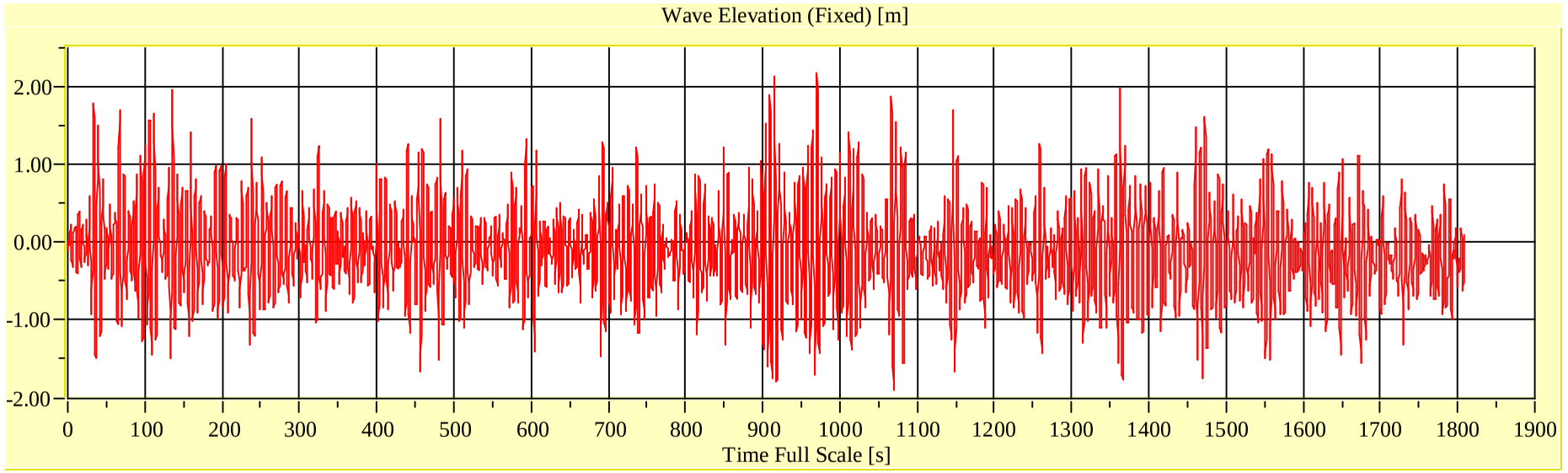
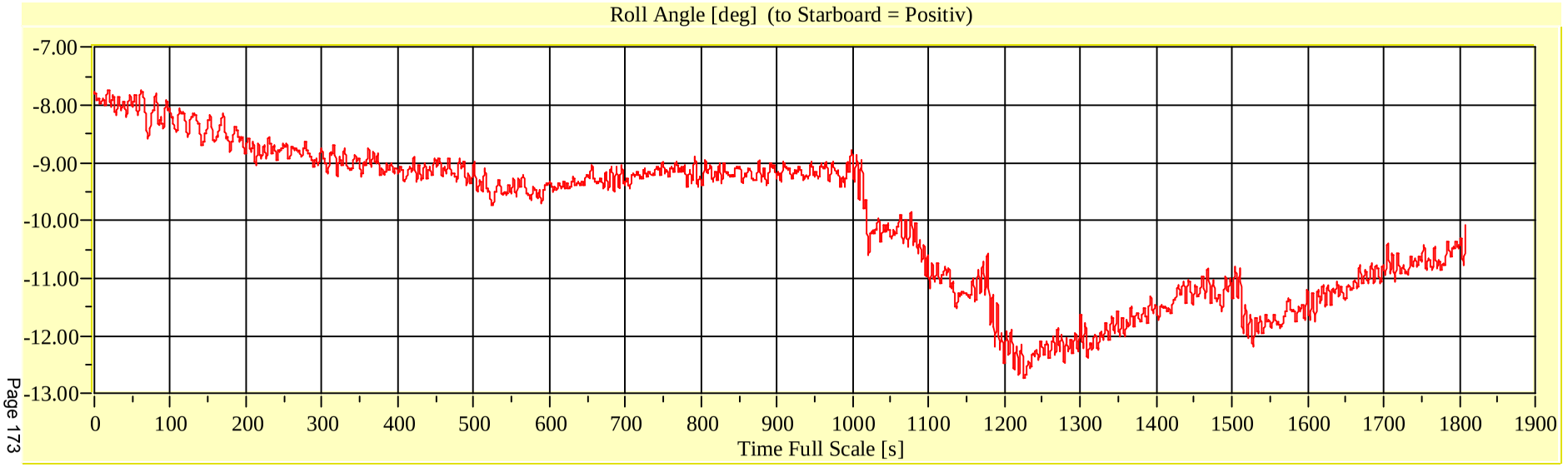


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-07	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3



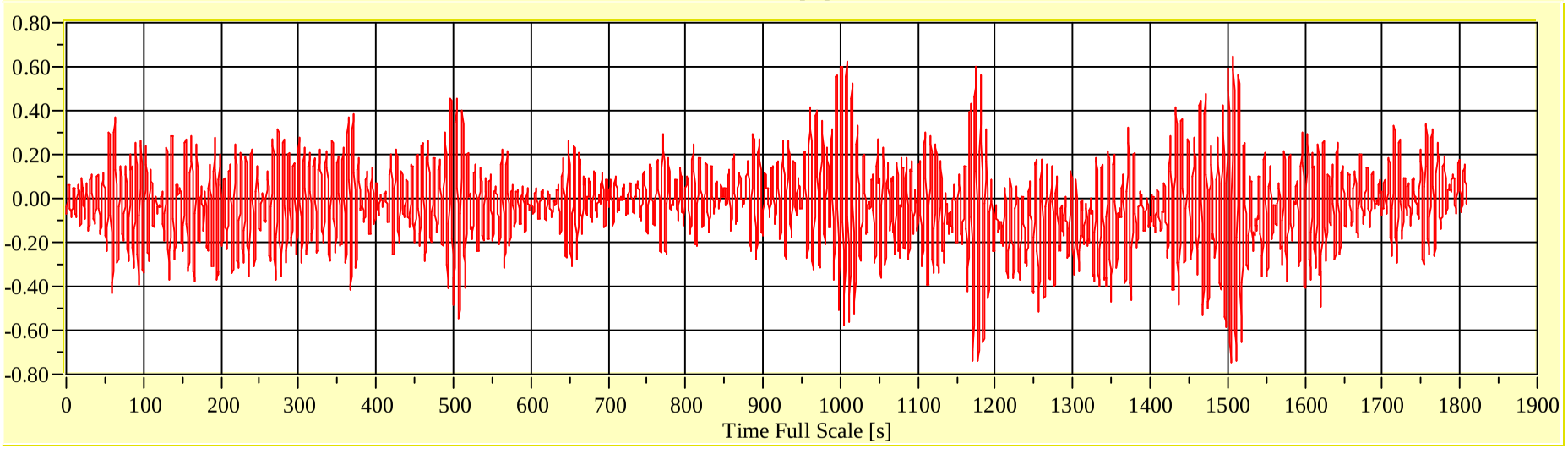


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

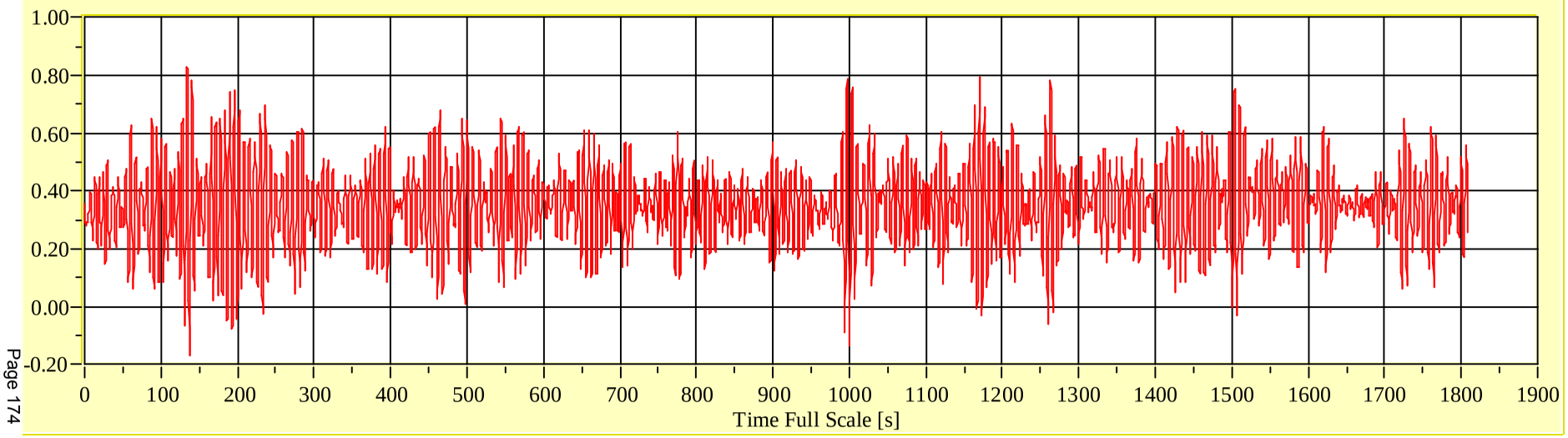
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-07	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

Heave [m]



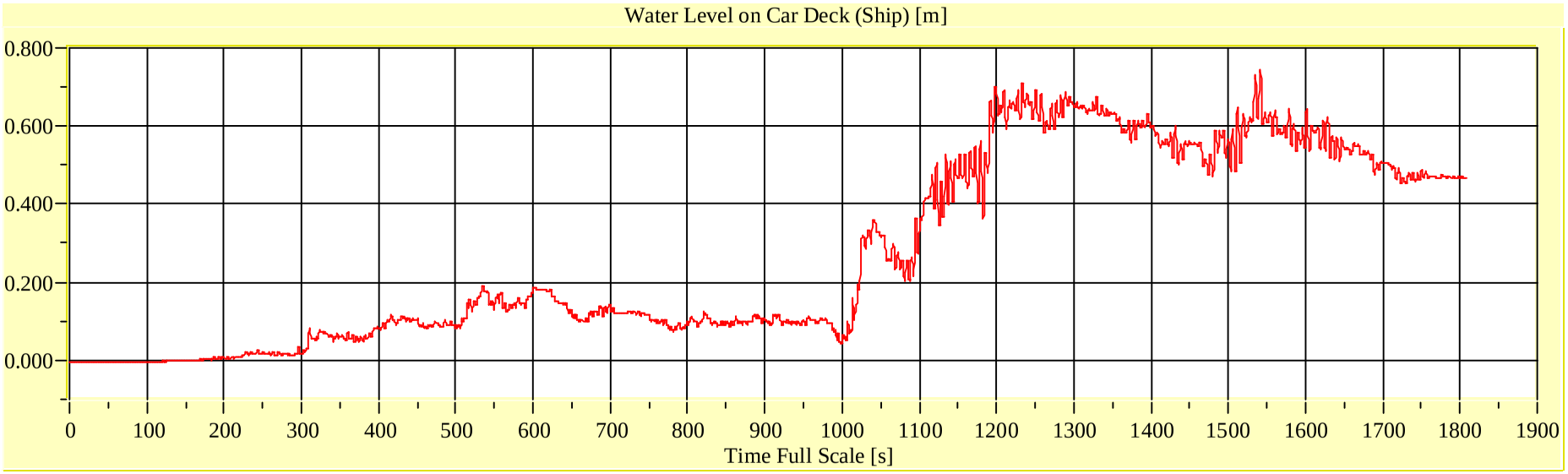
Pitch Angle [deg] (Bow Trim = Positiv)

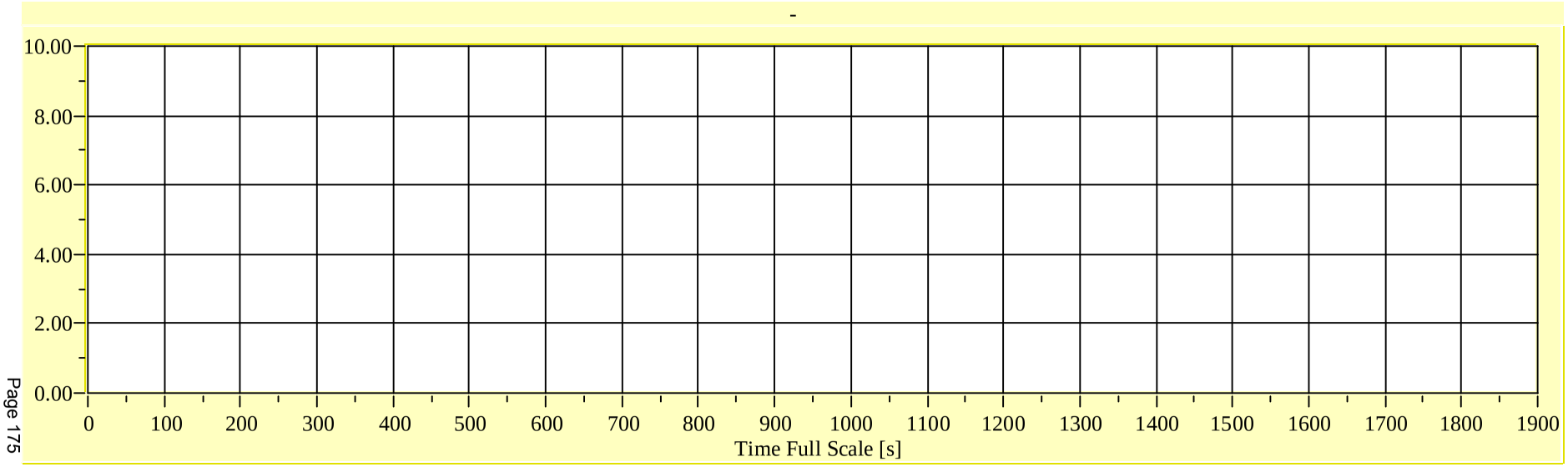


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-07	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

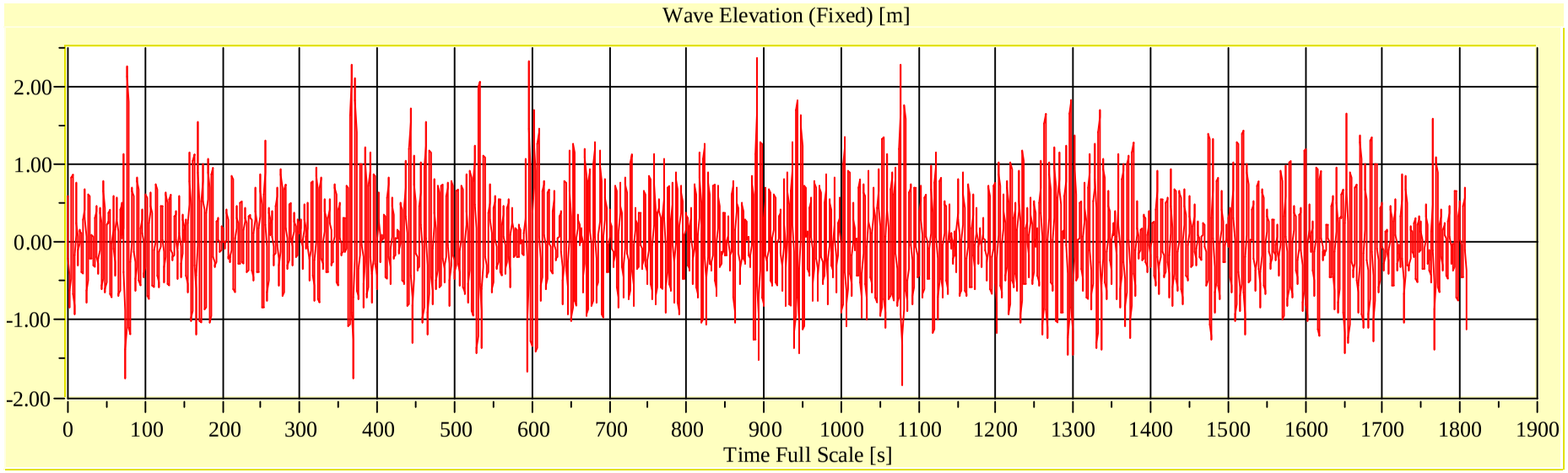


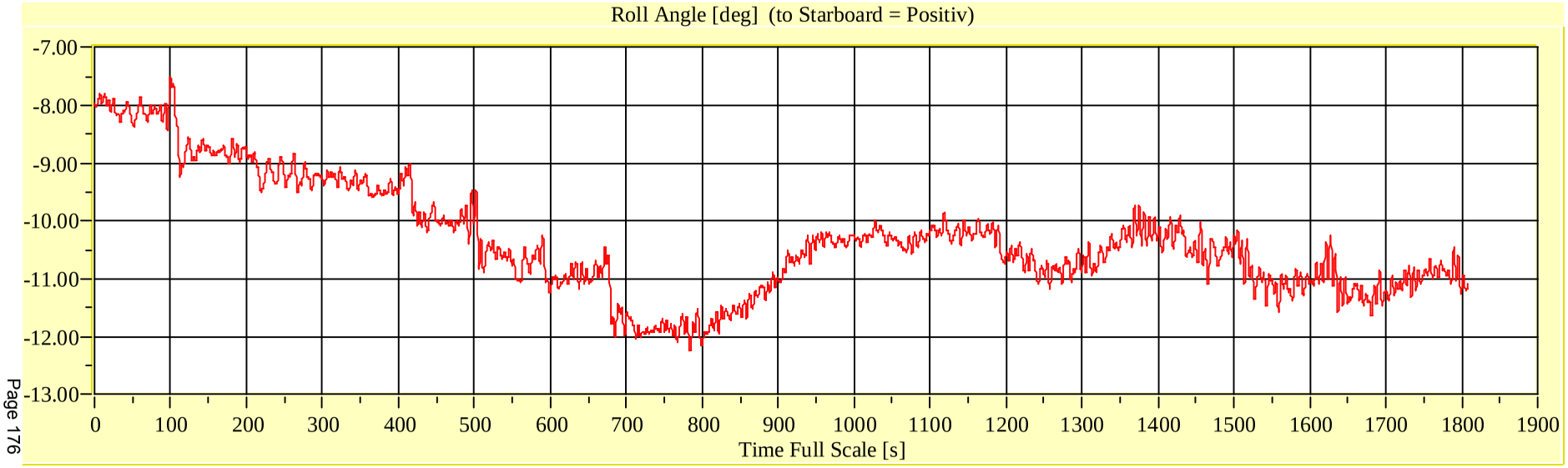


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-08	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

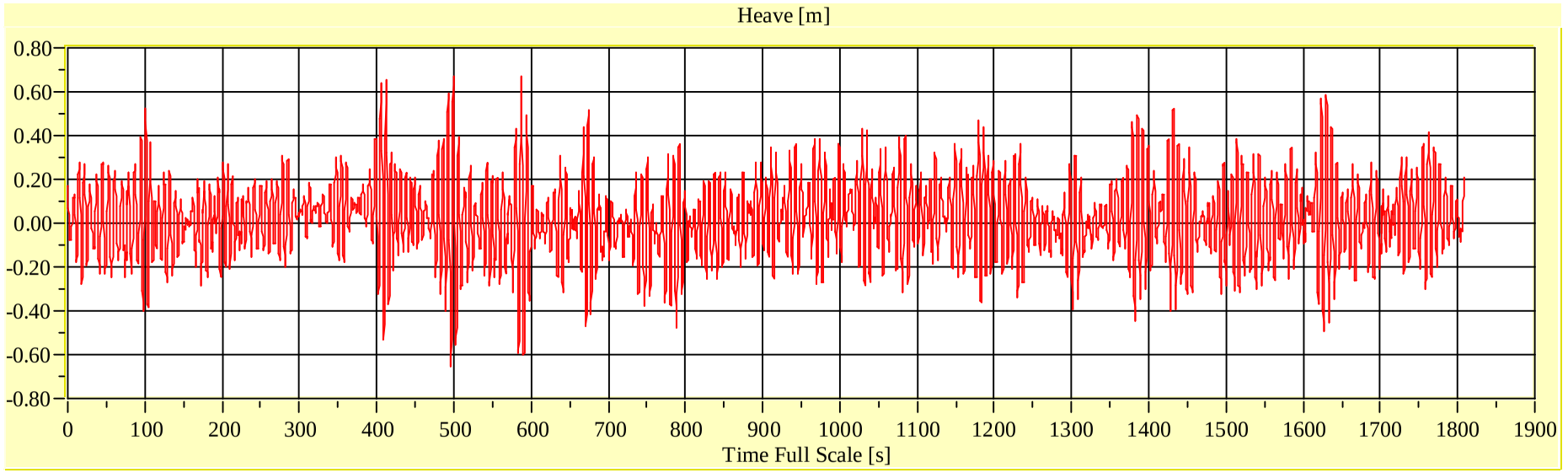


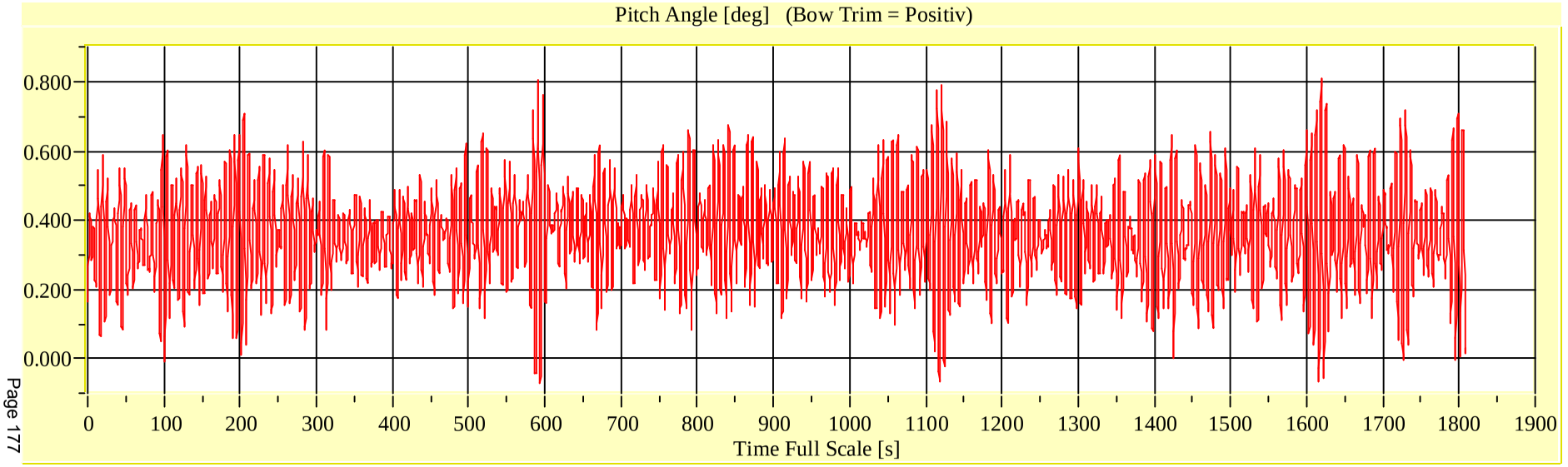


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-08	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

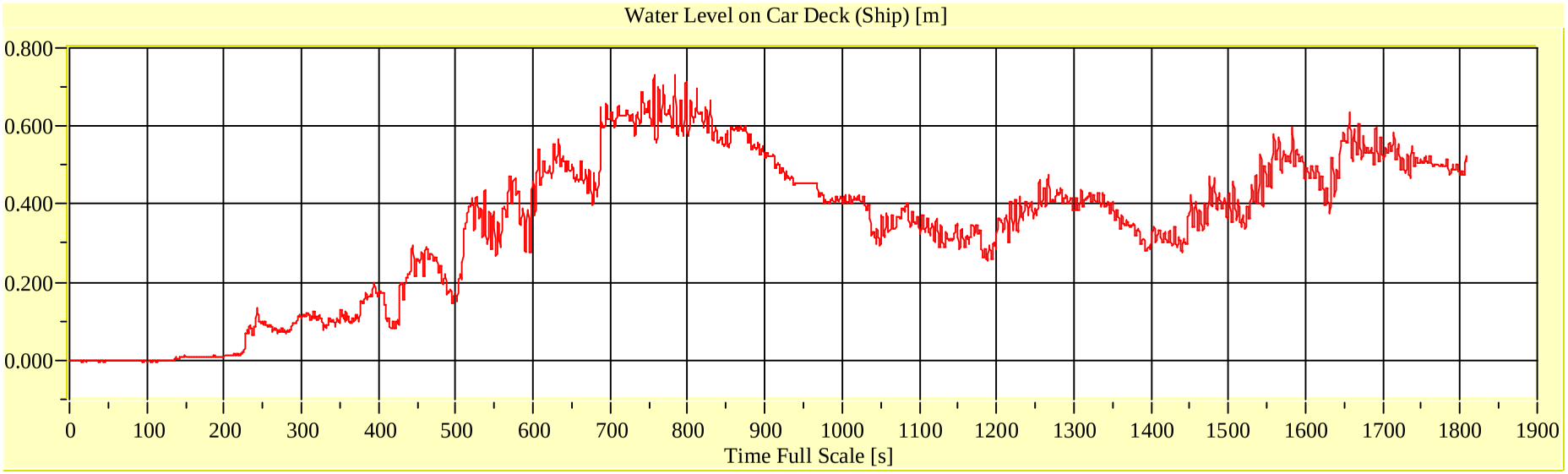


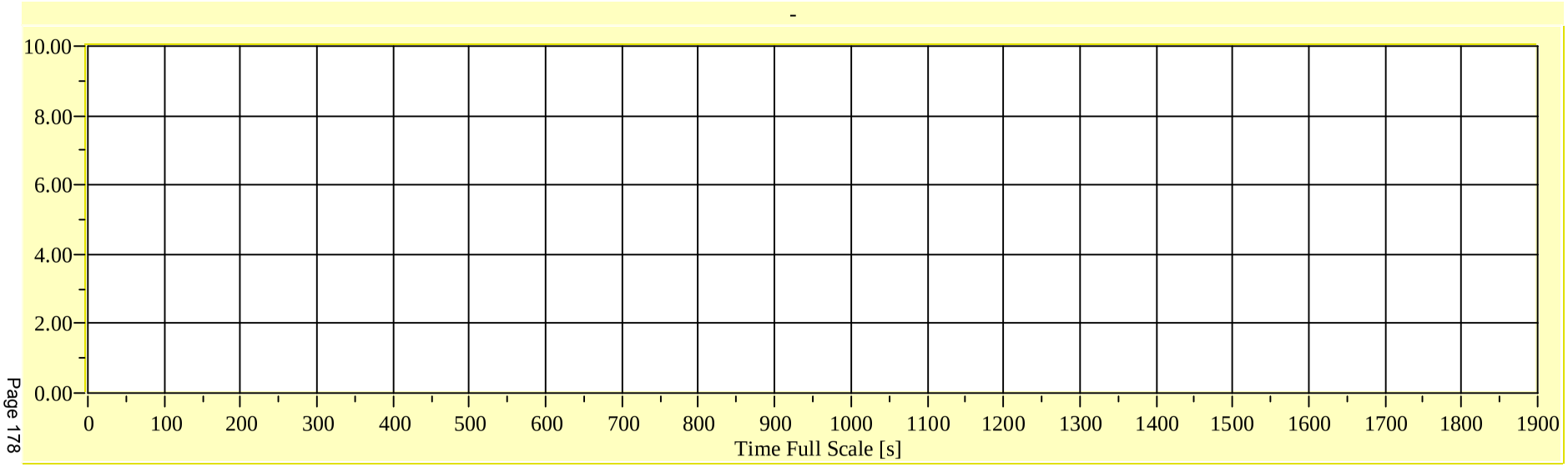


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-08	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

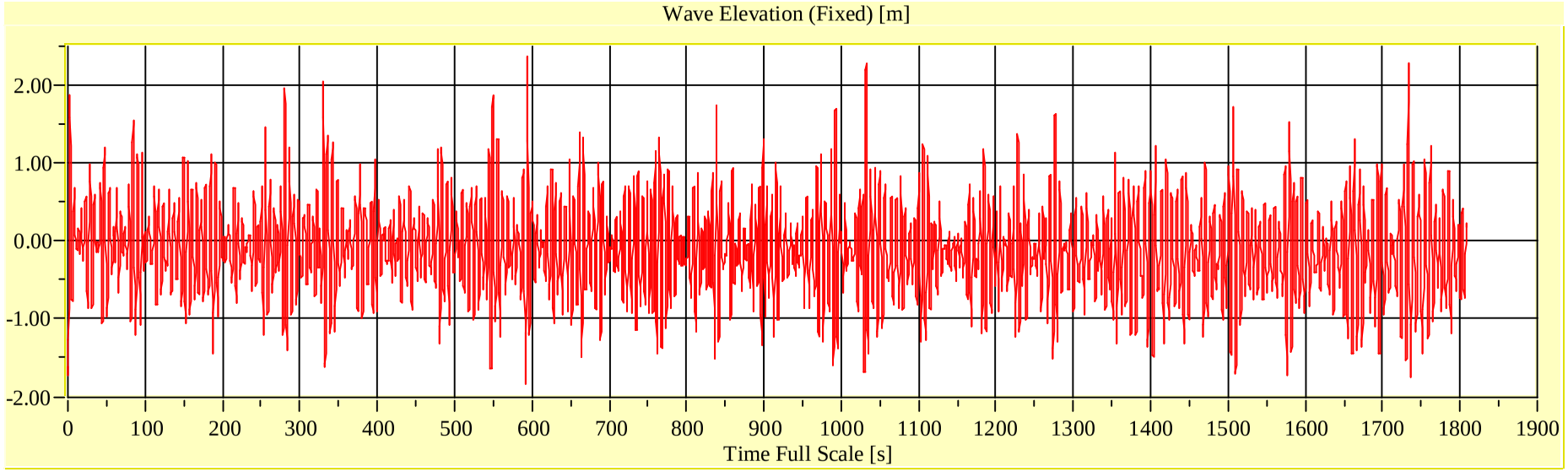


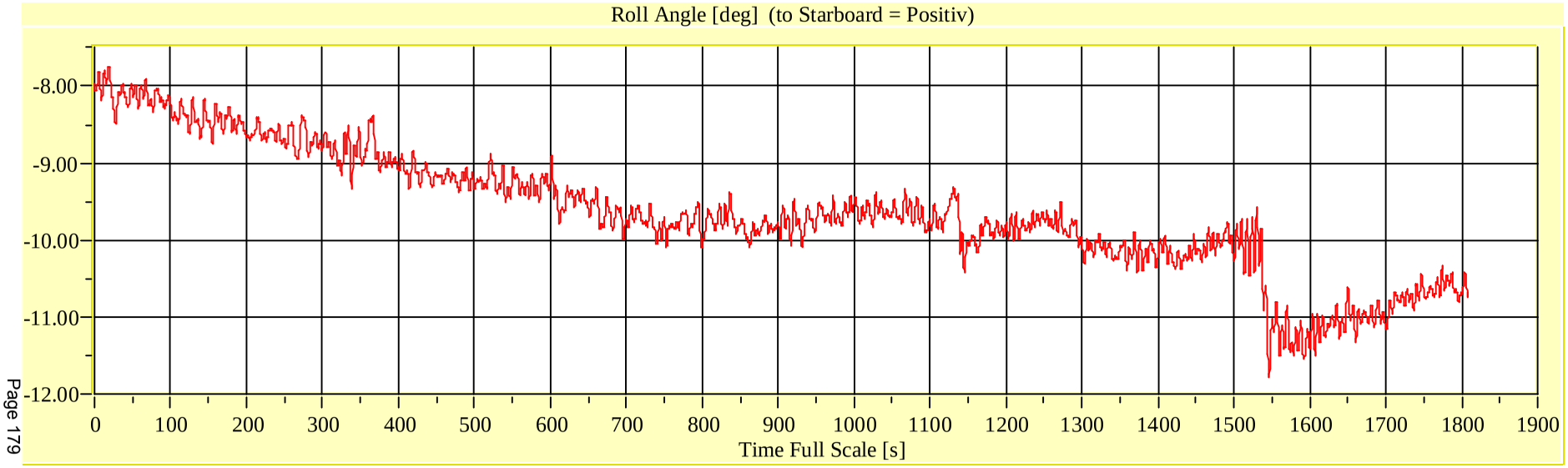


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-09	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

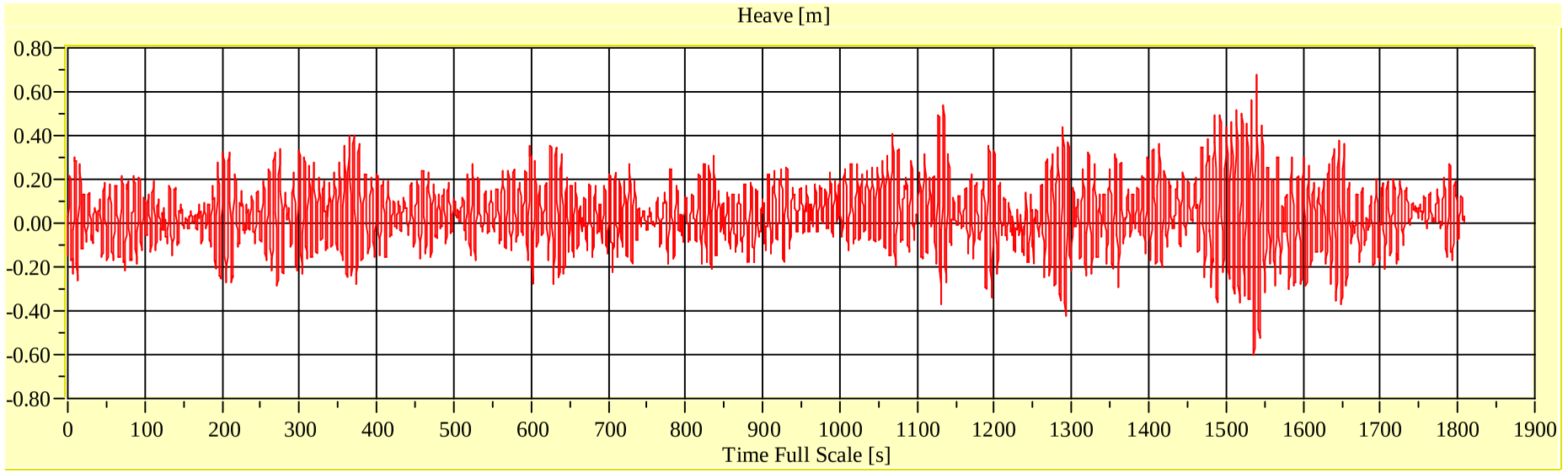


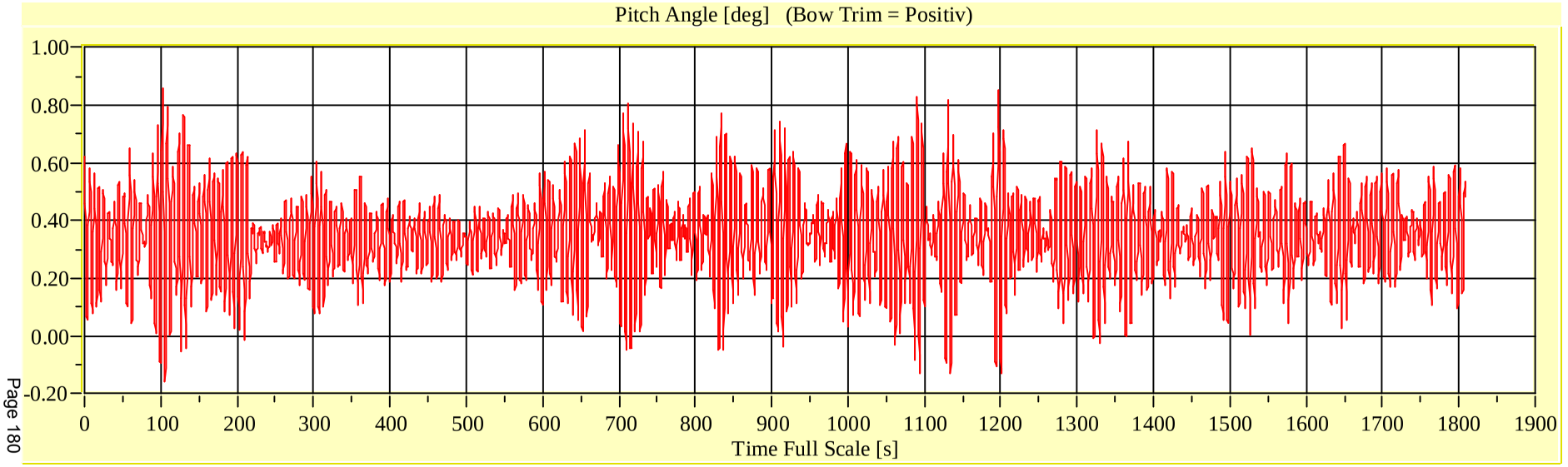


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-09	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

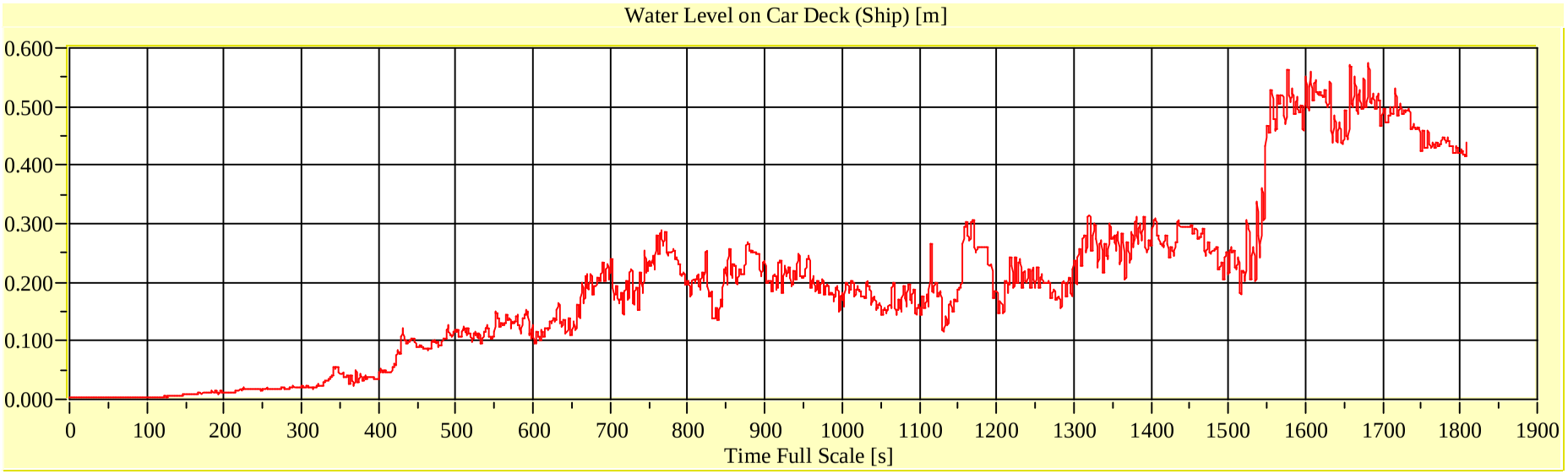




Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-09	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3



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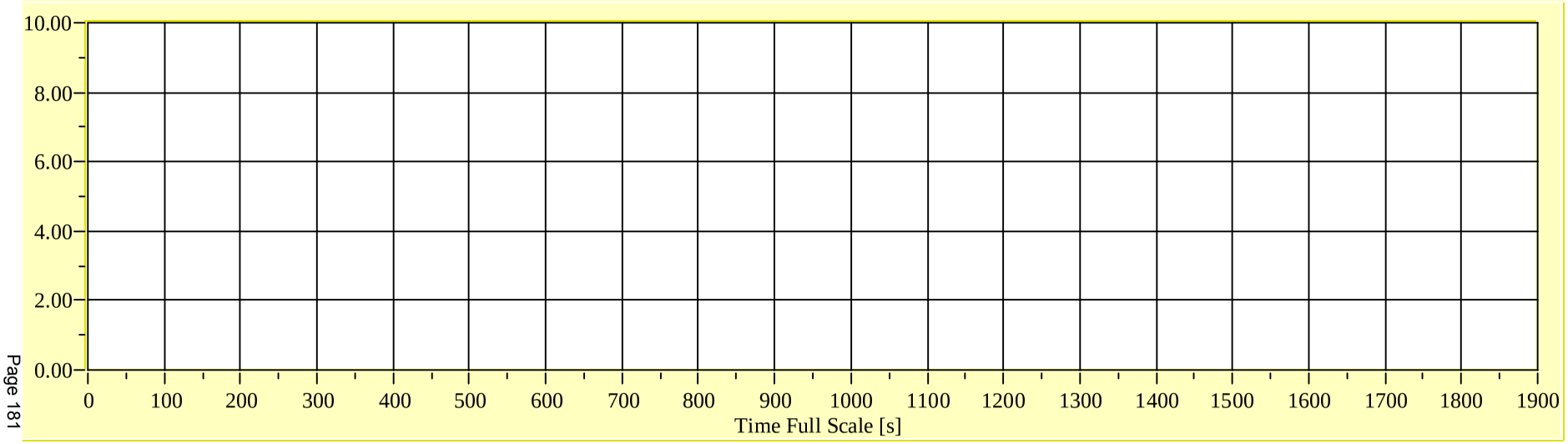
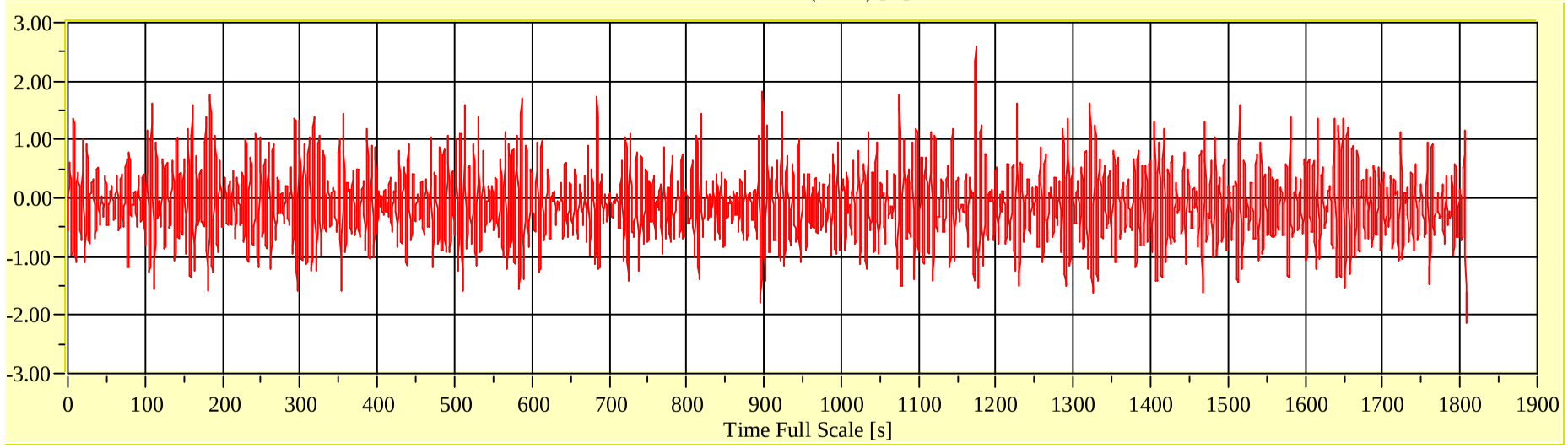


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

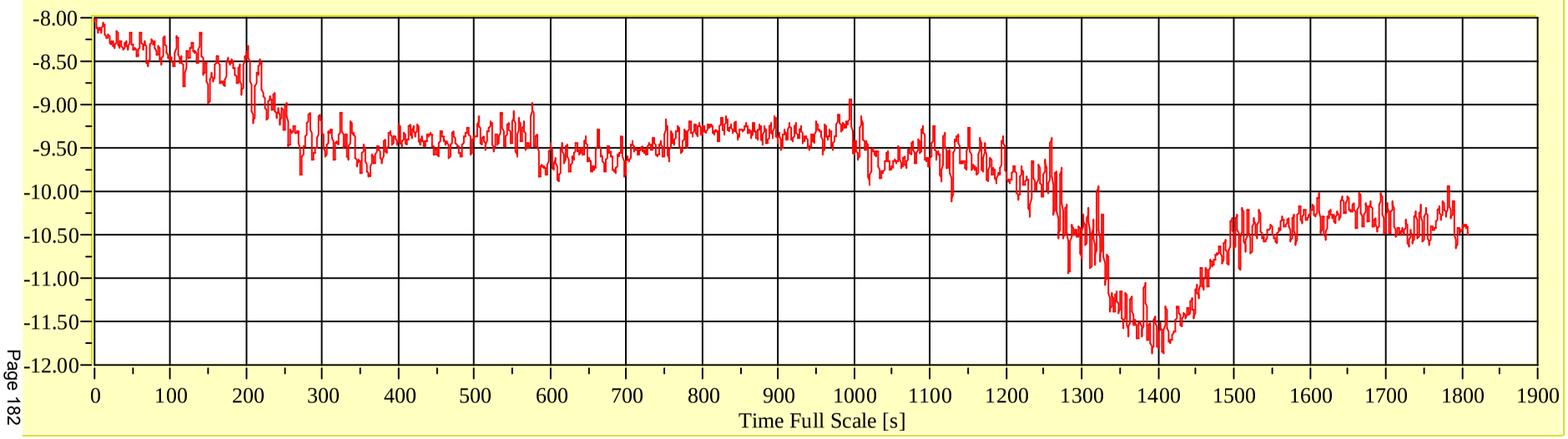
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-10	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

Wave Elevation (Fixed) [m]



Roll Angle [deg] (to Starboard = Positiv)

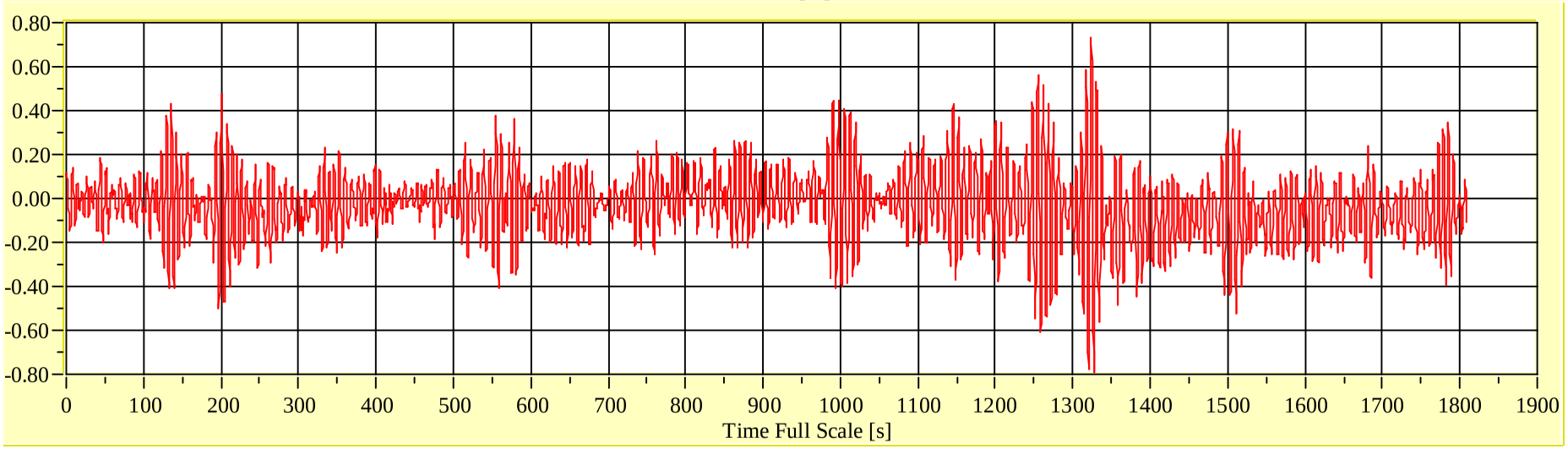


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

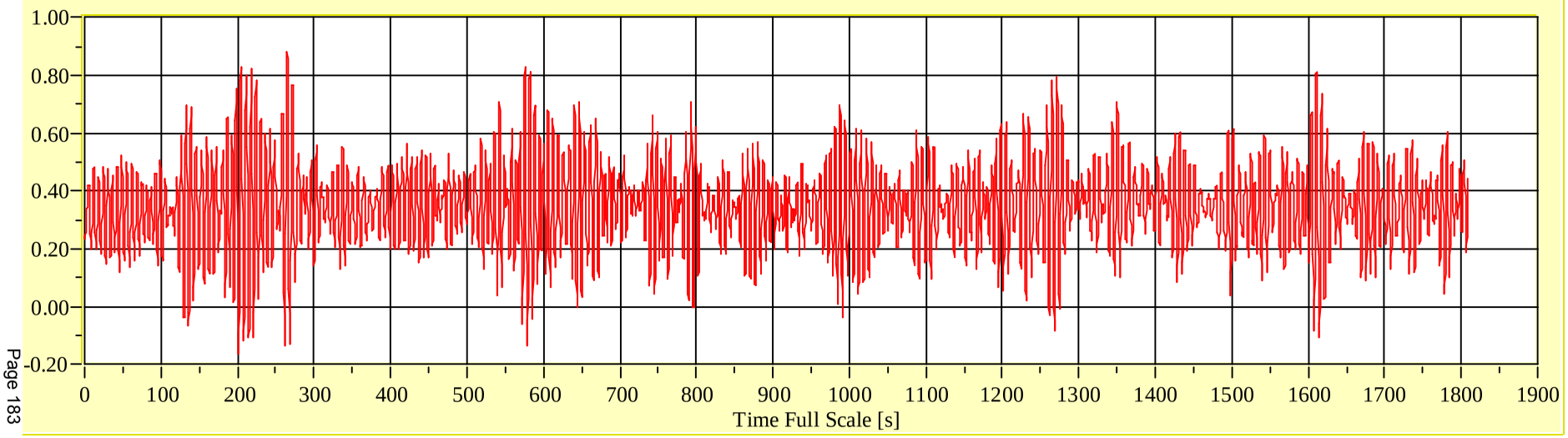
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-10	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

Heave [m]



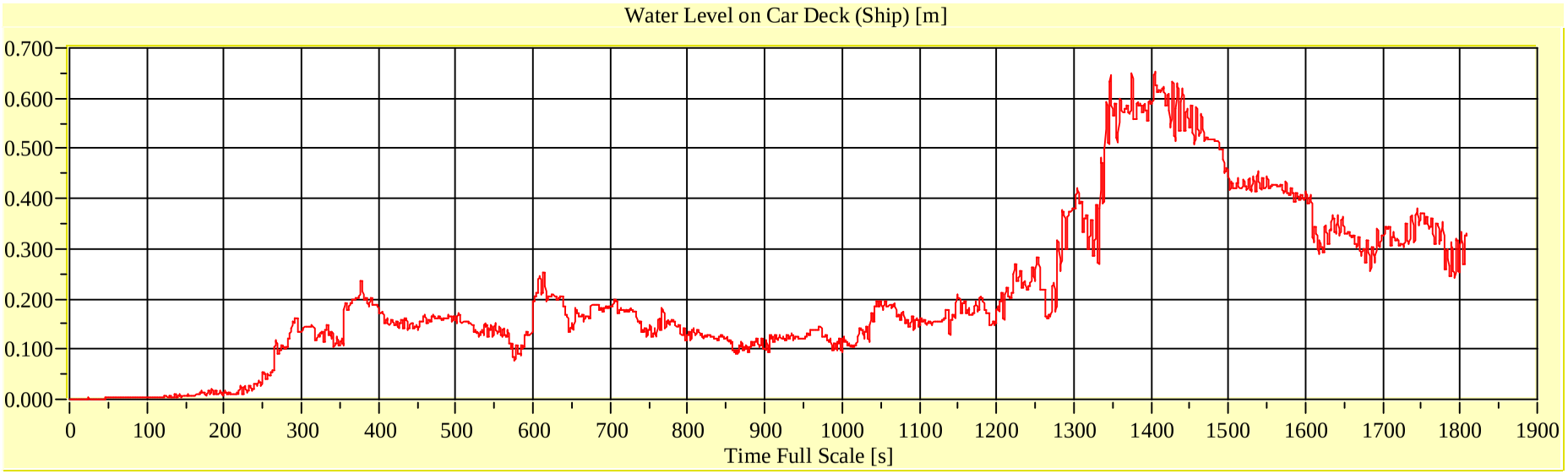
Pitch Angle [deg] (Bow Trim = Positiv)

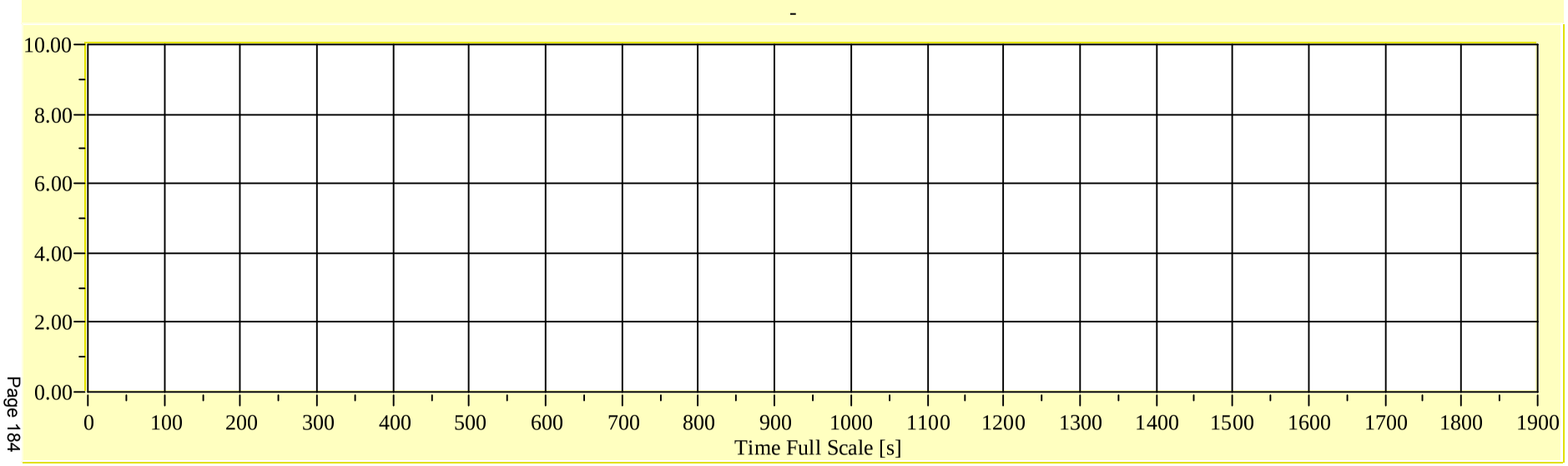


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29732-10	Target Waves: Hs = 2,25 m Tp = 6,0 s	gamma = 3,3

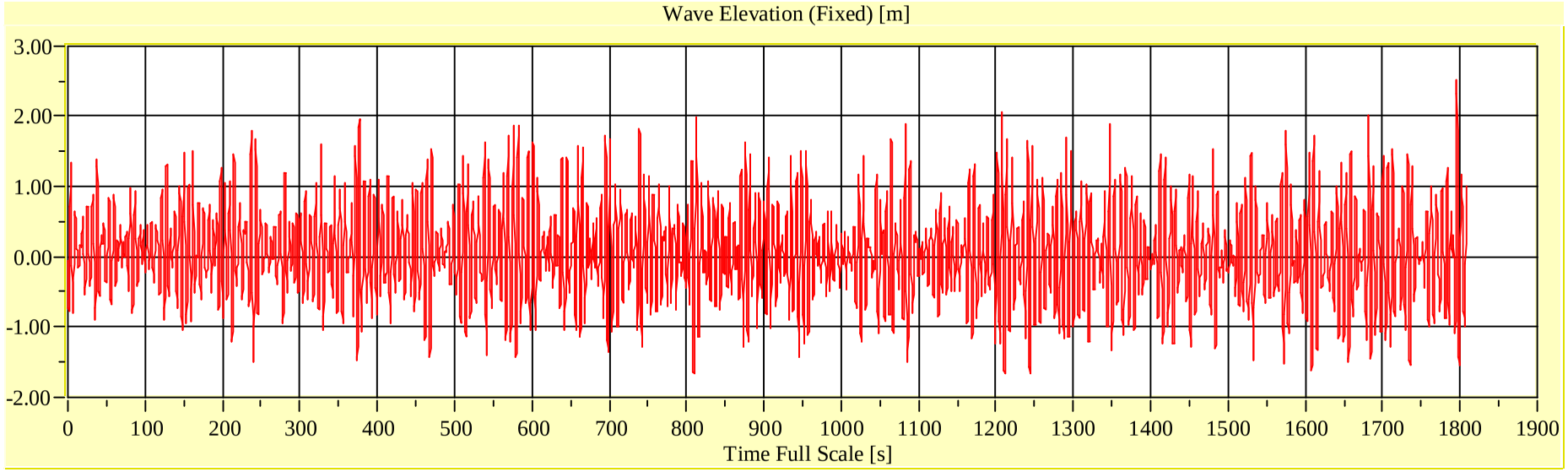


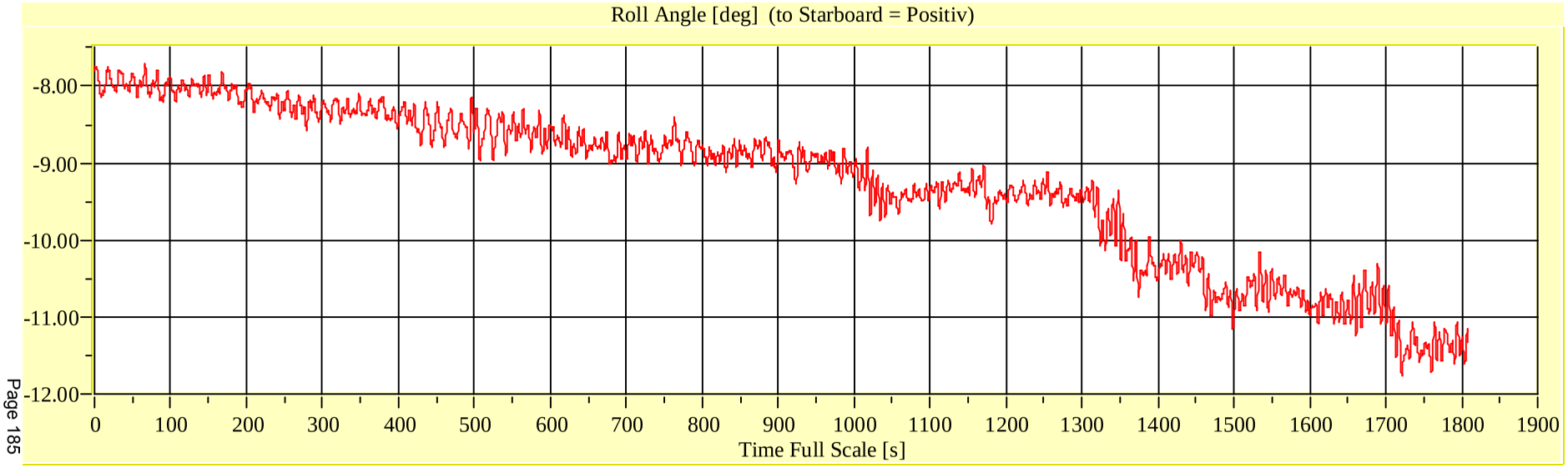


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-01	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3



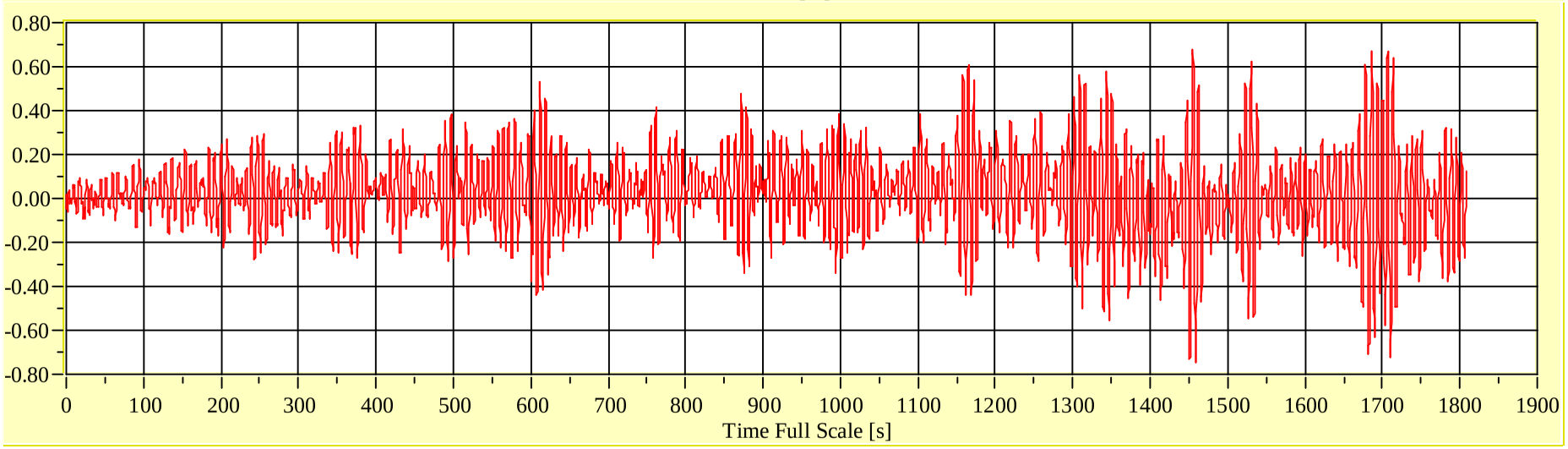


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

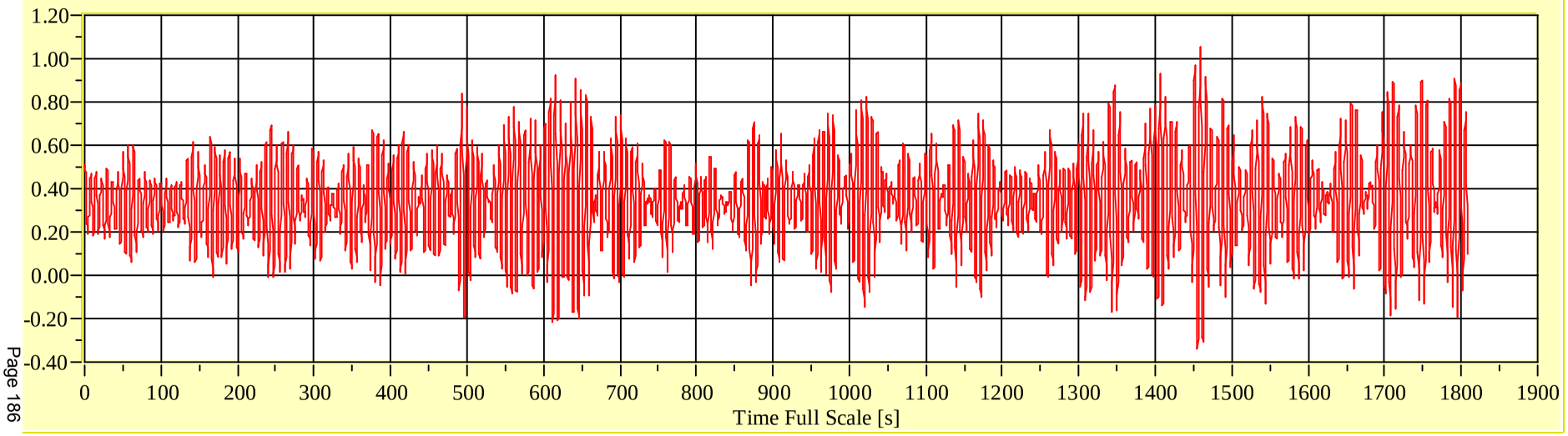
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-01	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

Heave [m]



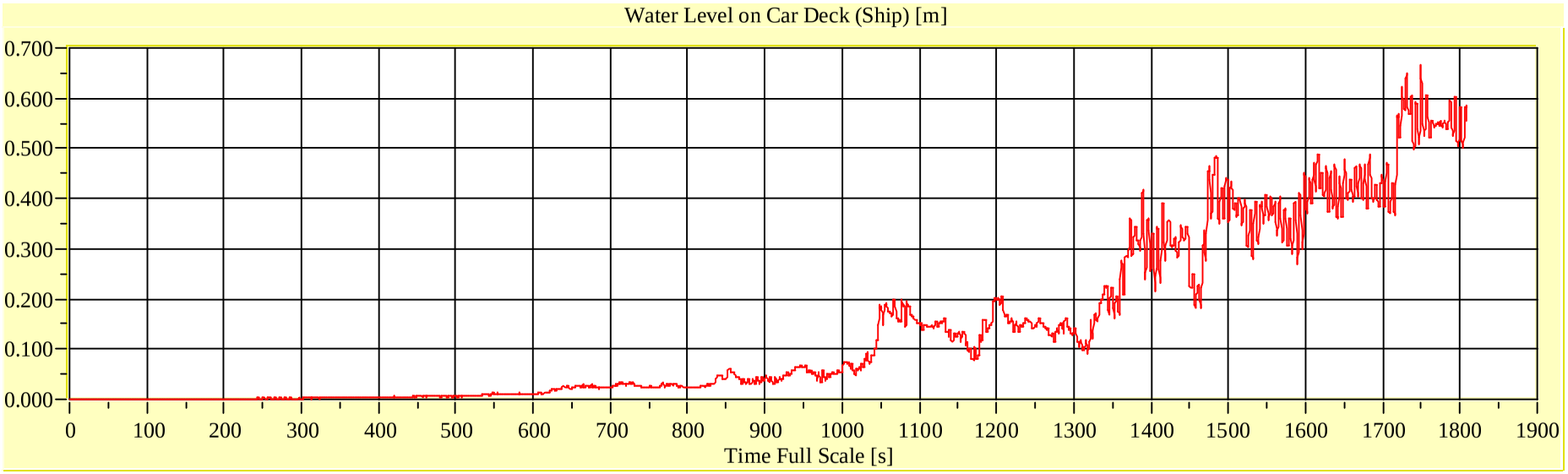
Pitch Angle [deg] (Bow Trim = Positiv)



Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-01	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3



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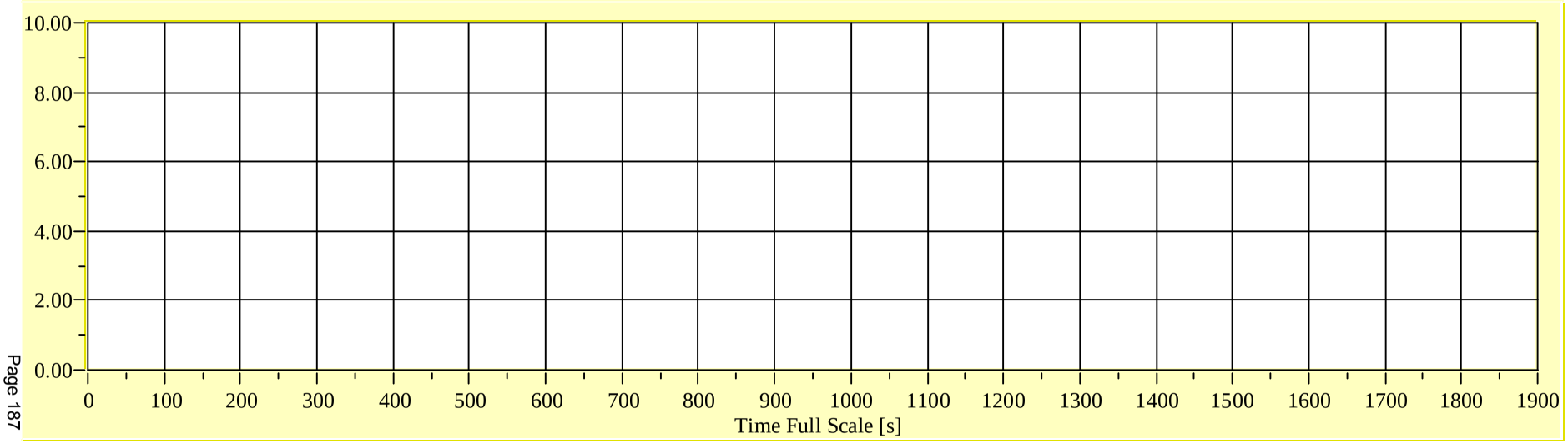
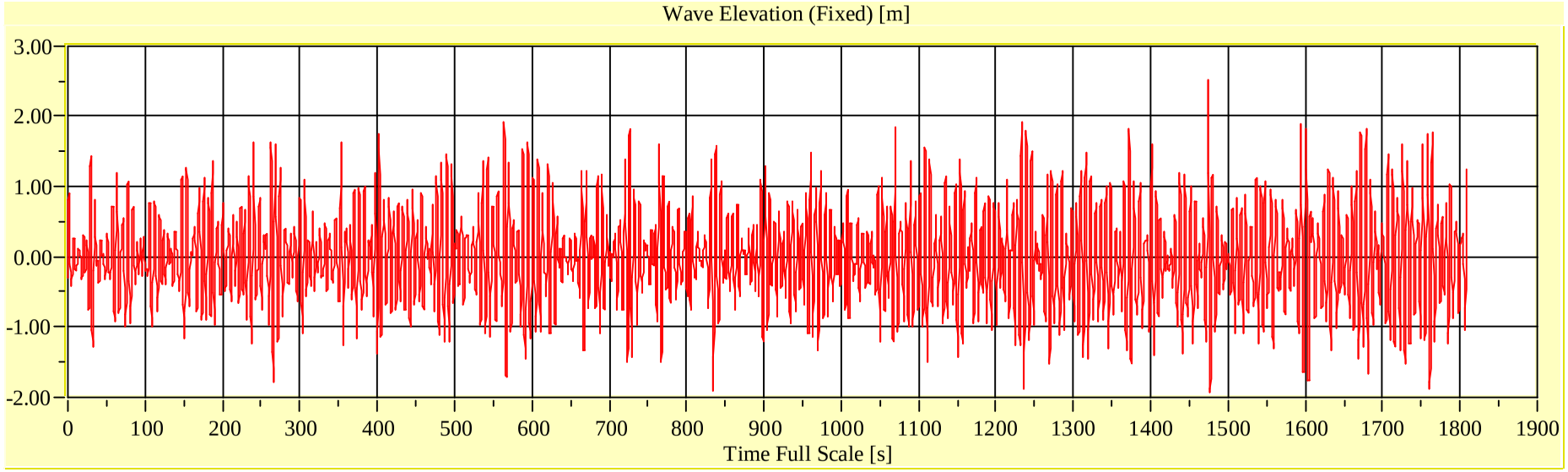
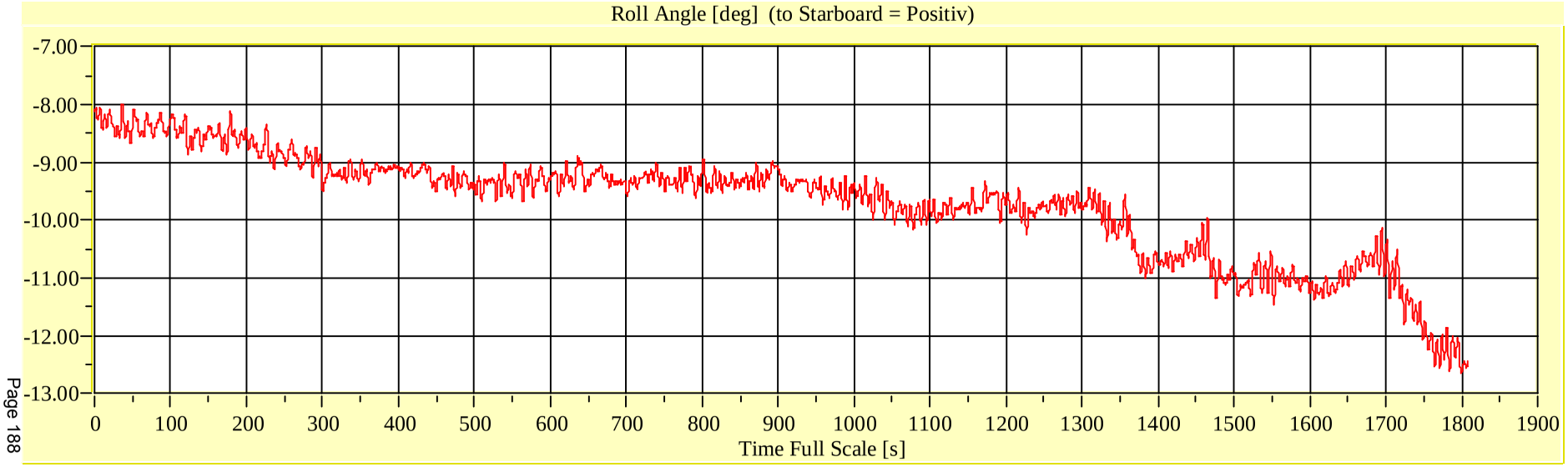


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-02	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

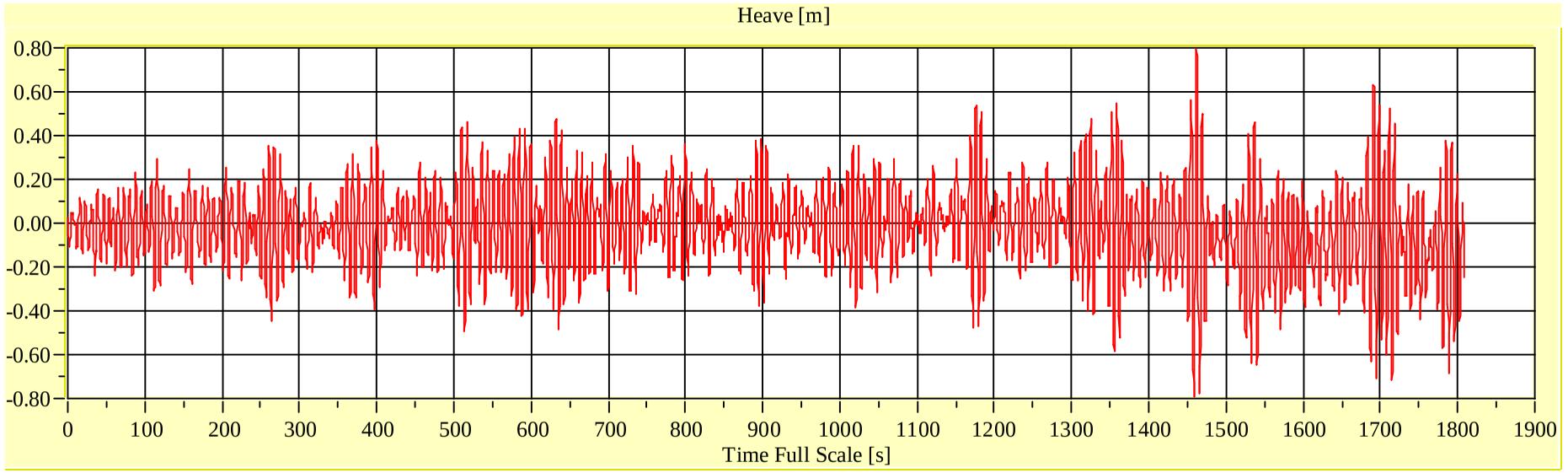


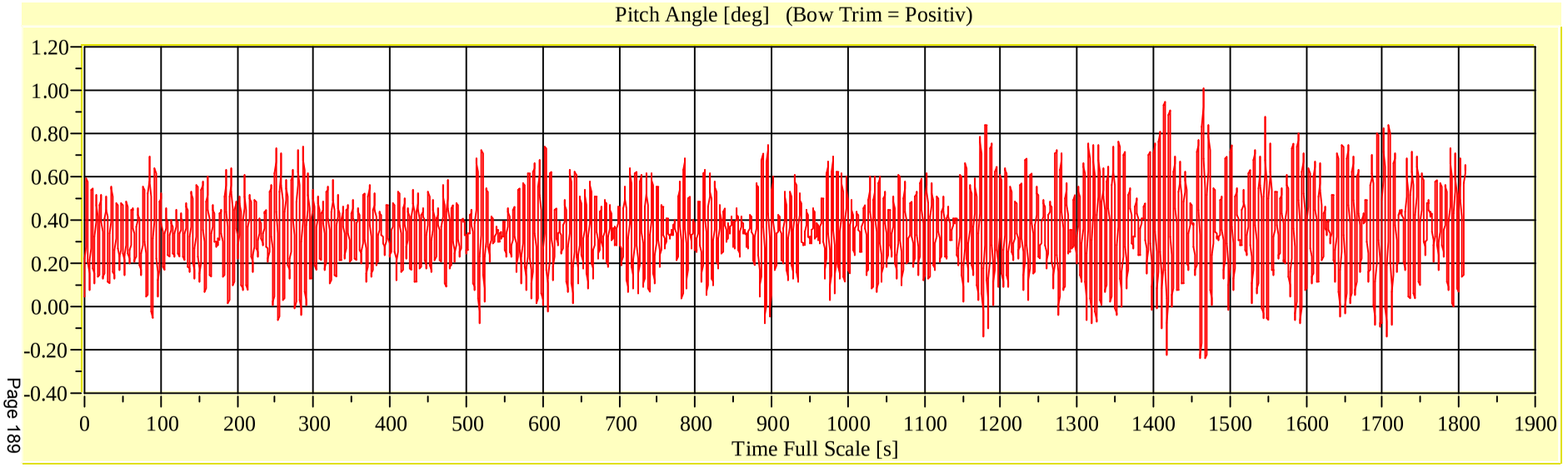


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-02	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

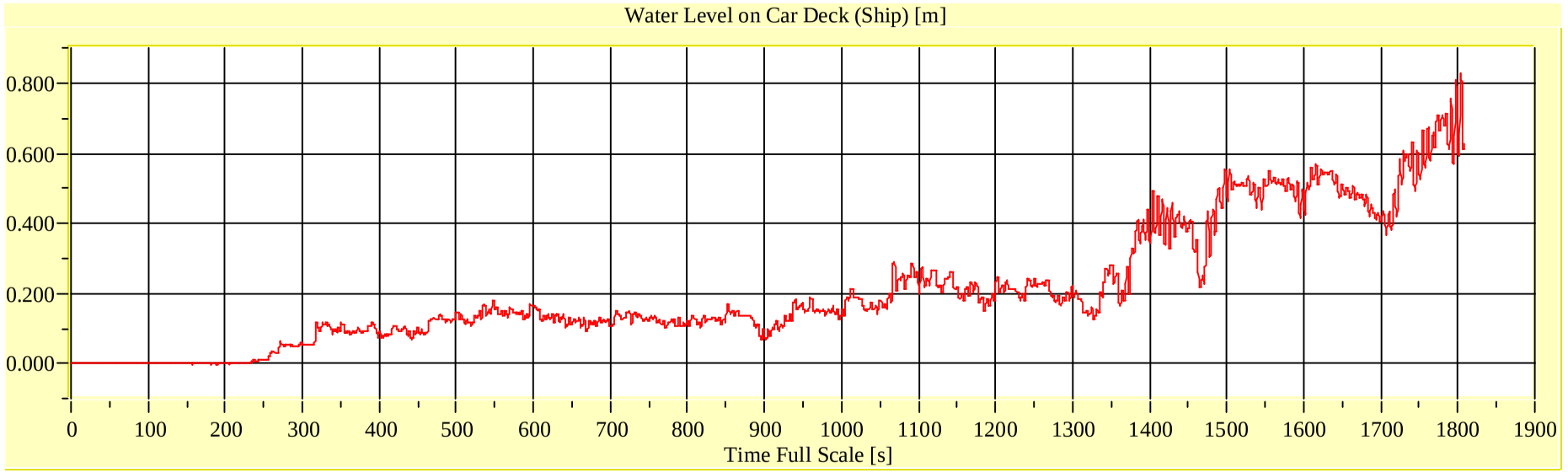


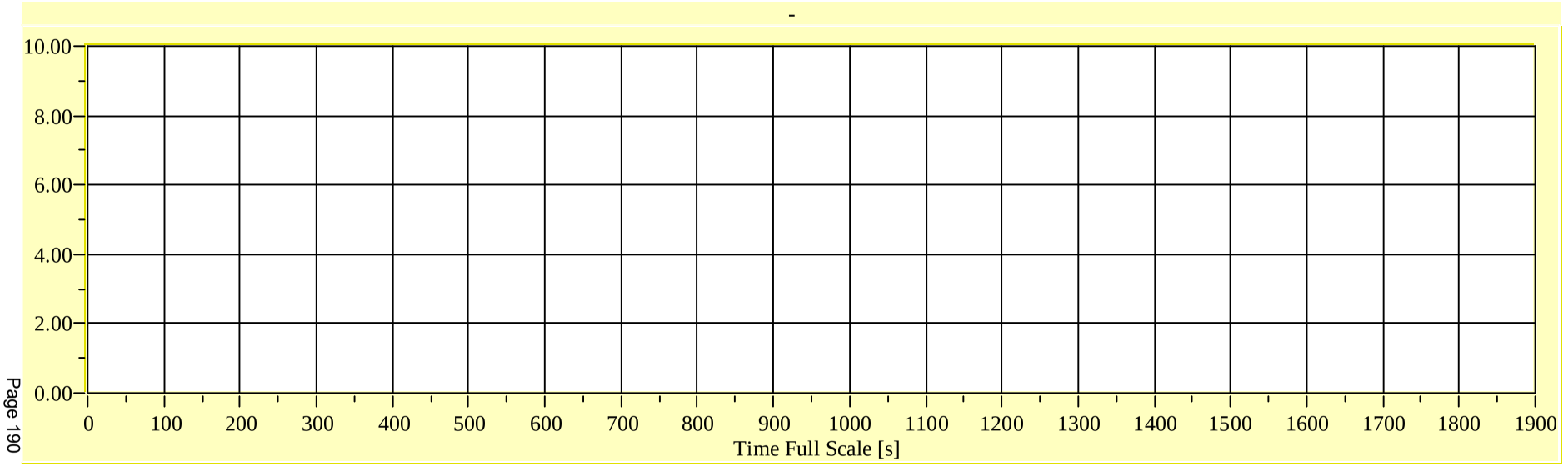


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-02	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

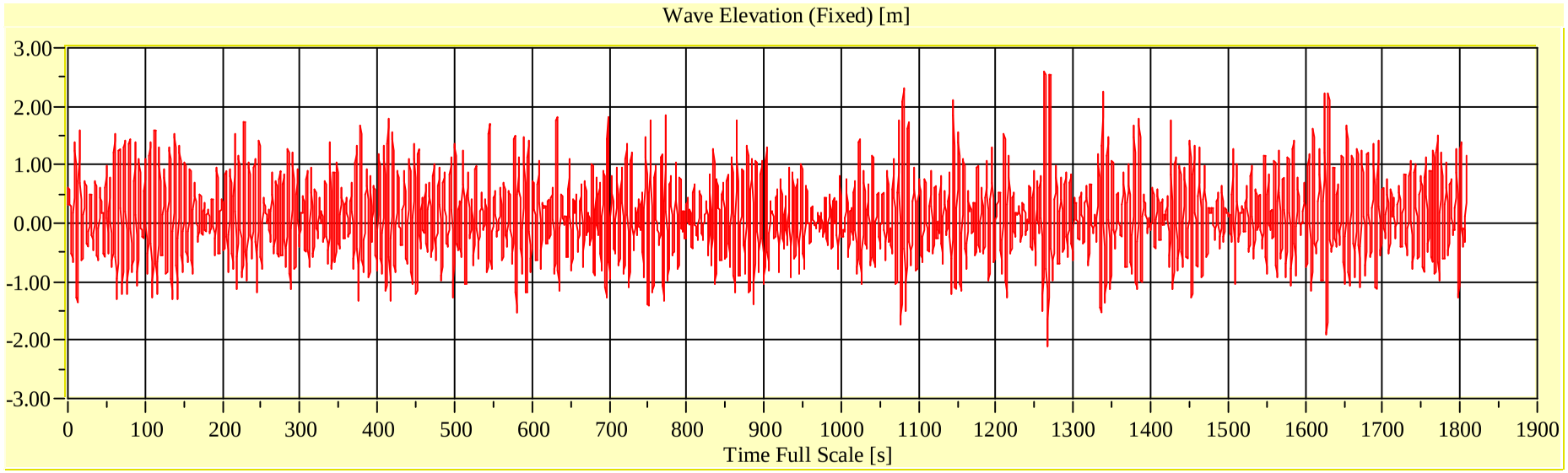


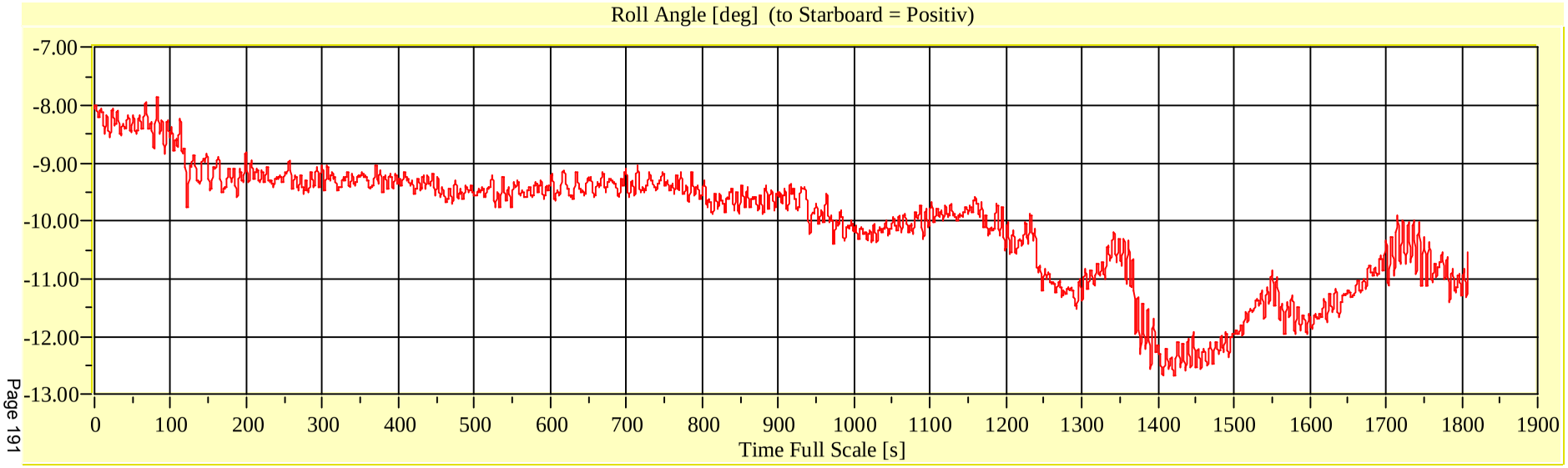


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-03	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3



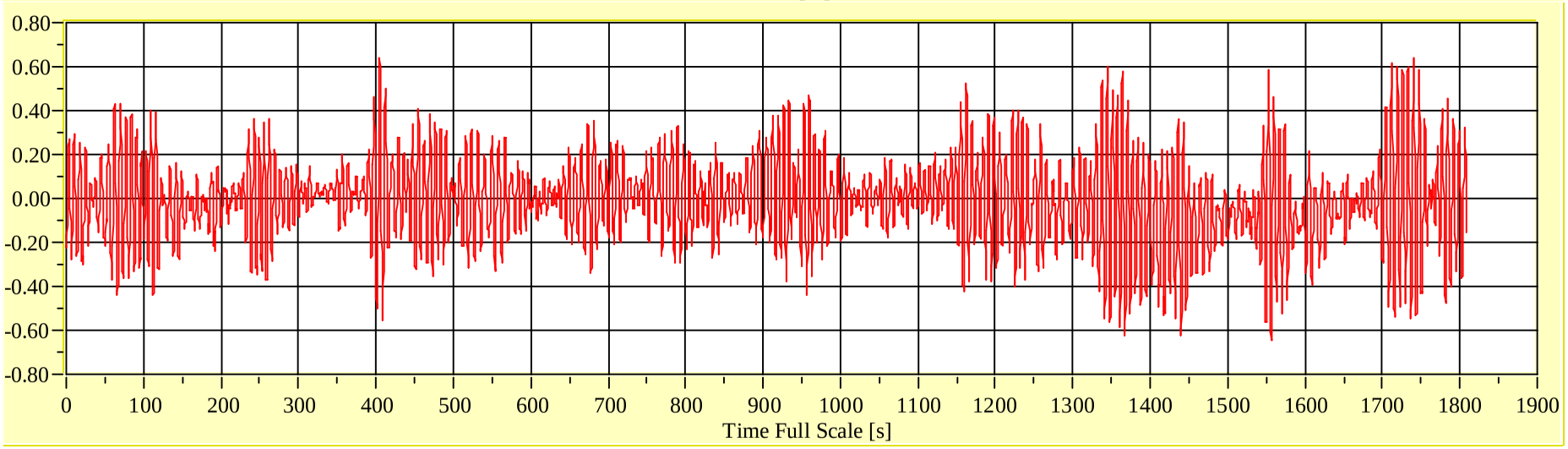


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

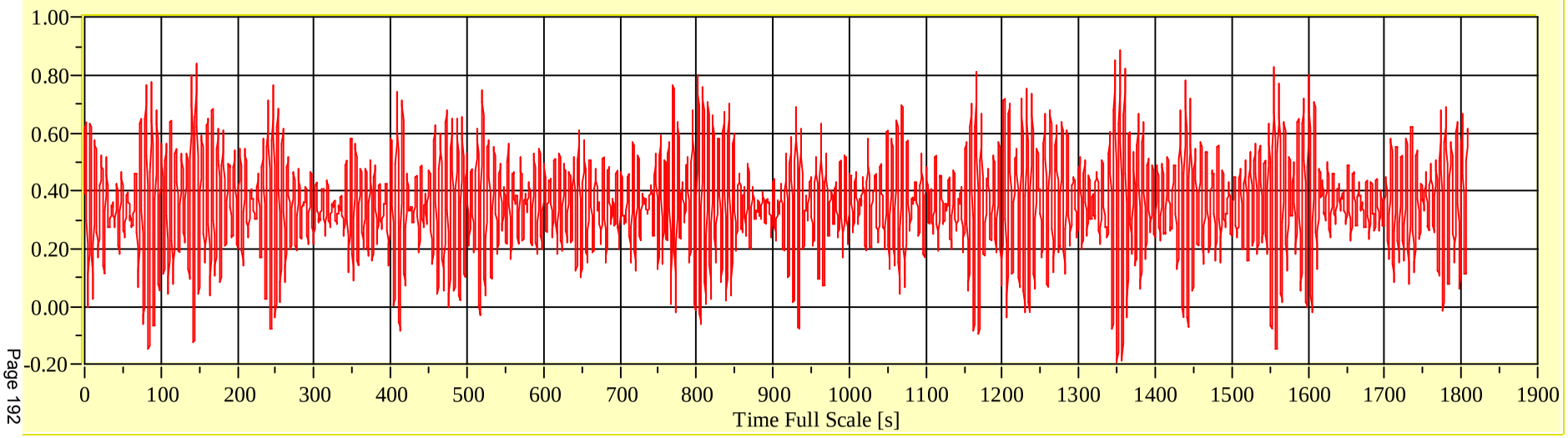
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-03	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

Heave [m]



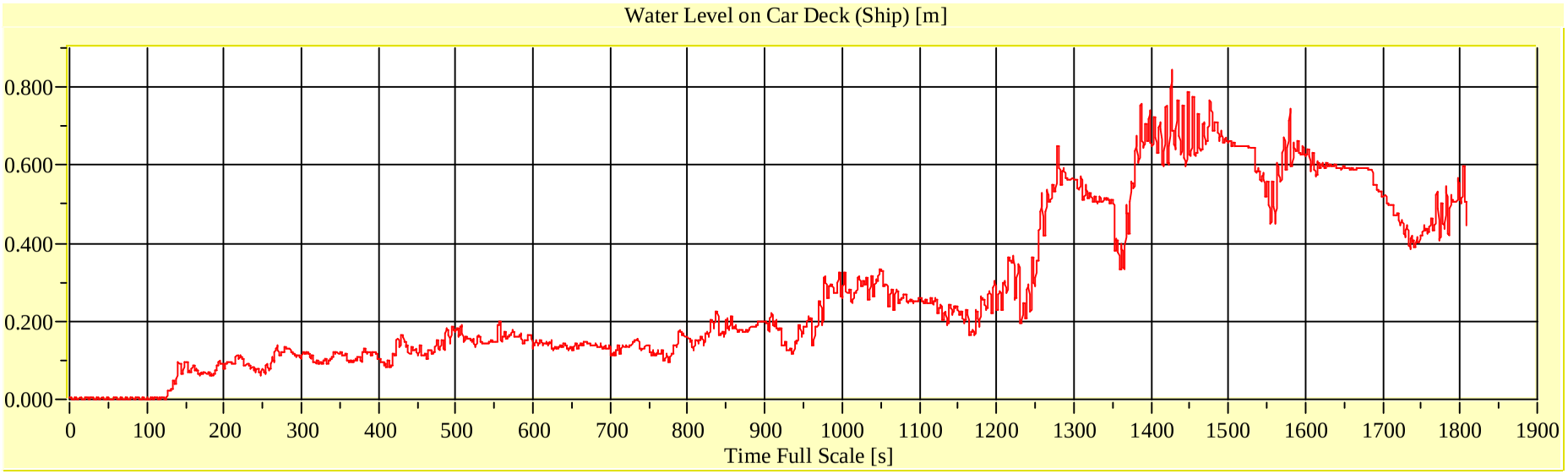
Pitch Angle [deg] (Bow Trim = Positiv)

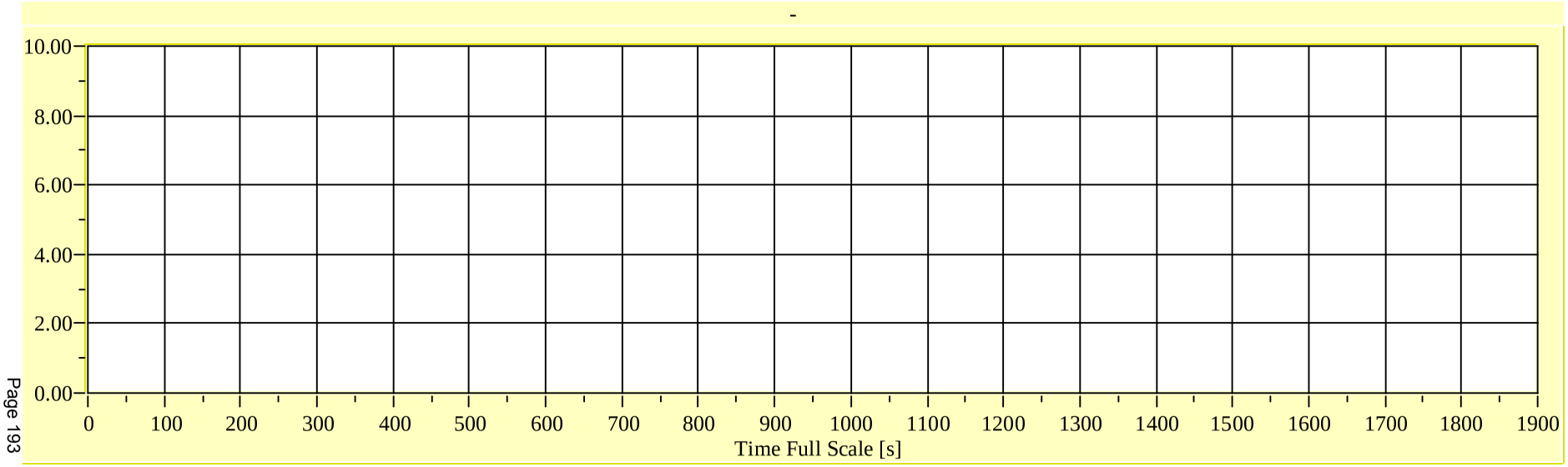


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-03	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

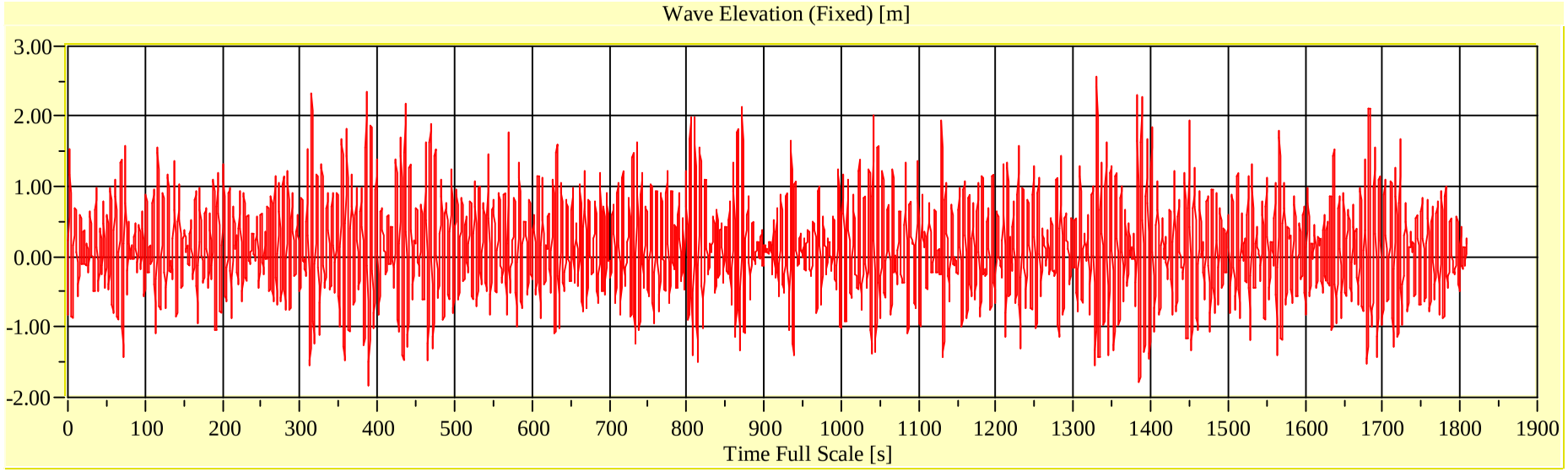


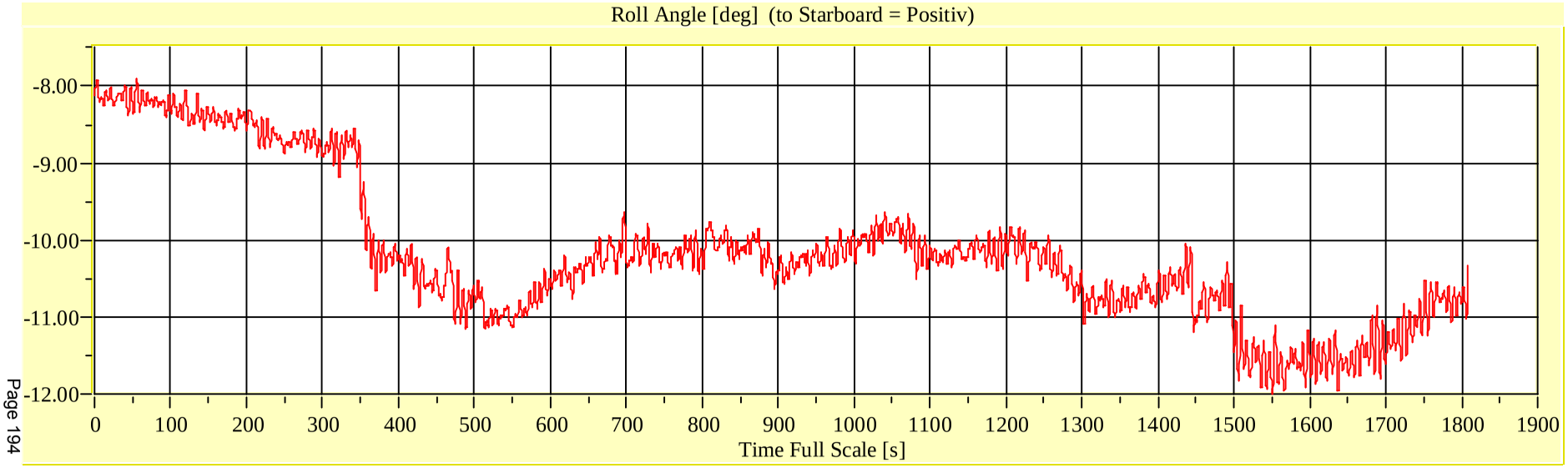


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-04	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

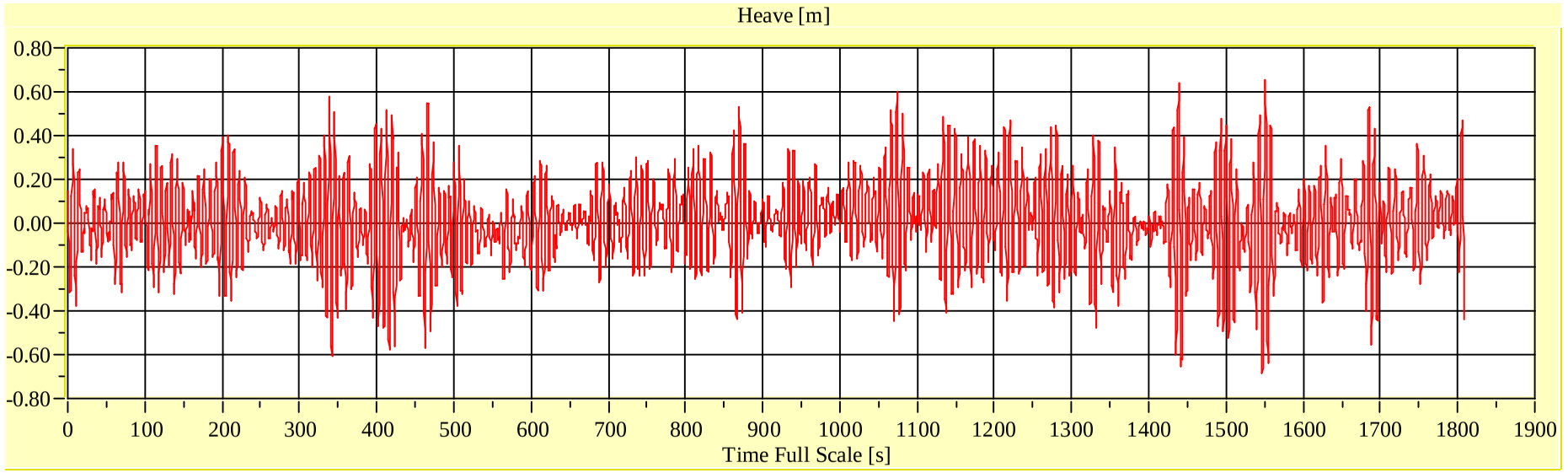


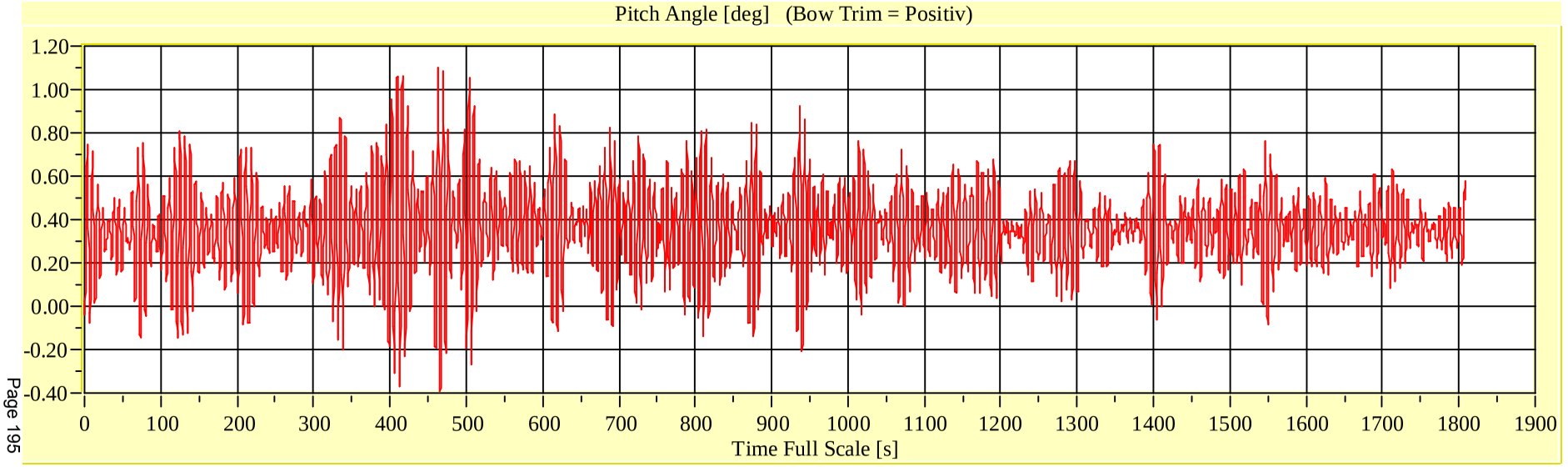


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-04	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

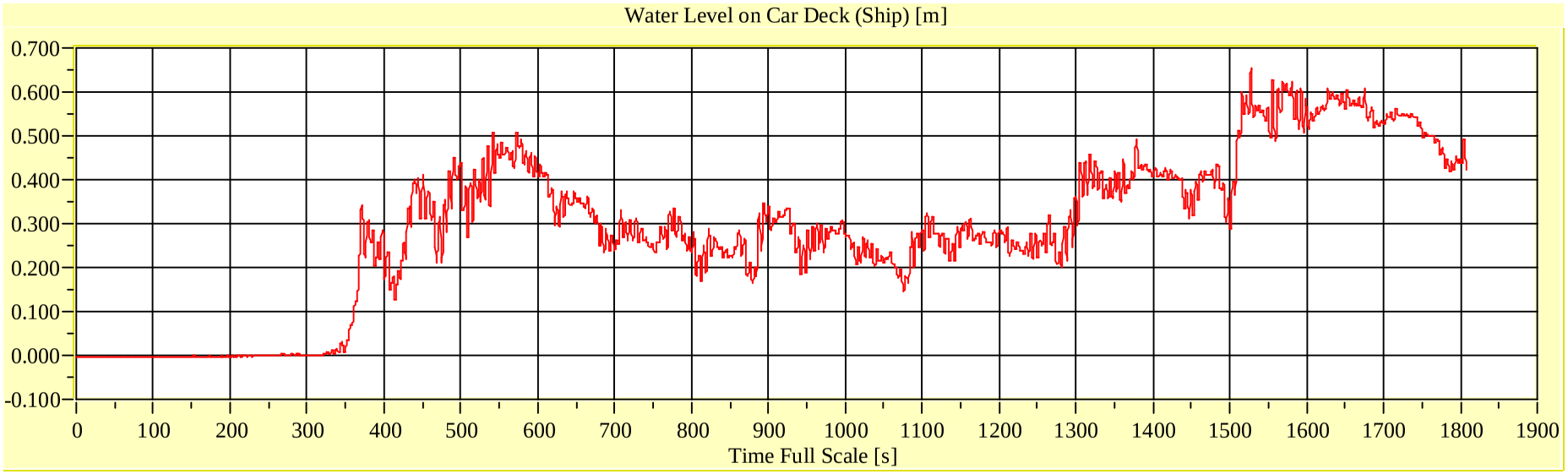




Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-04	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3



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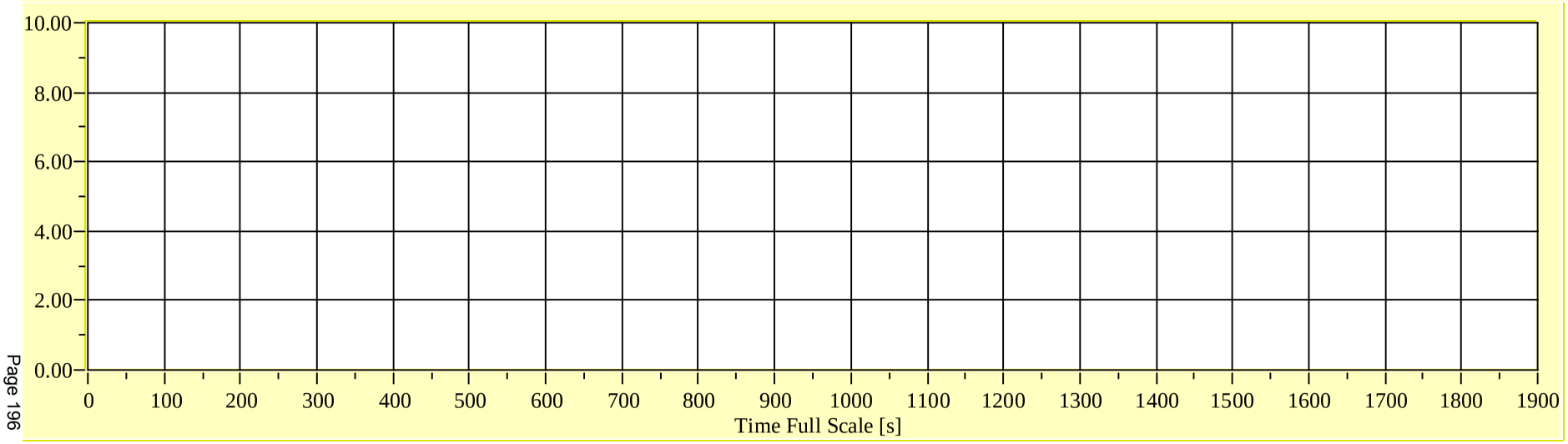
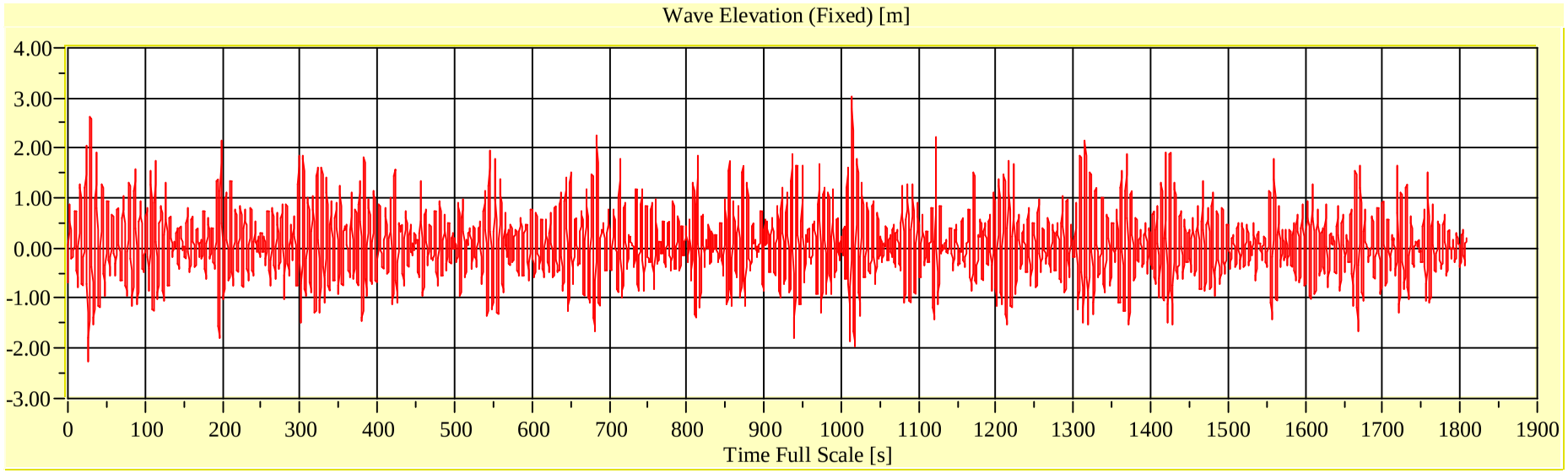
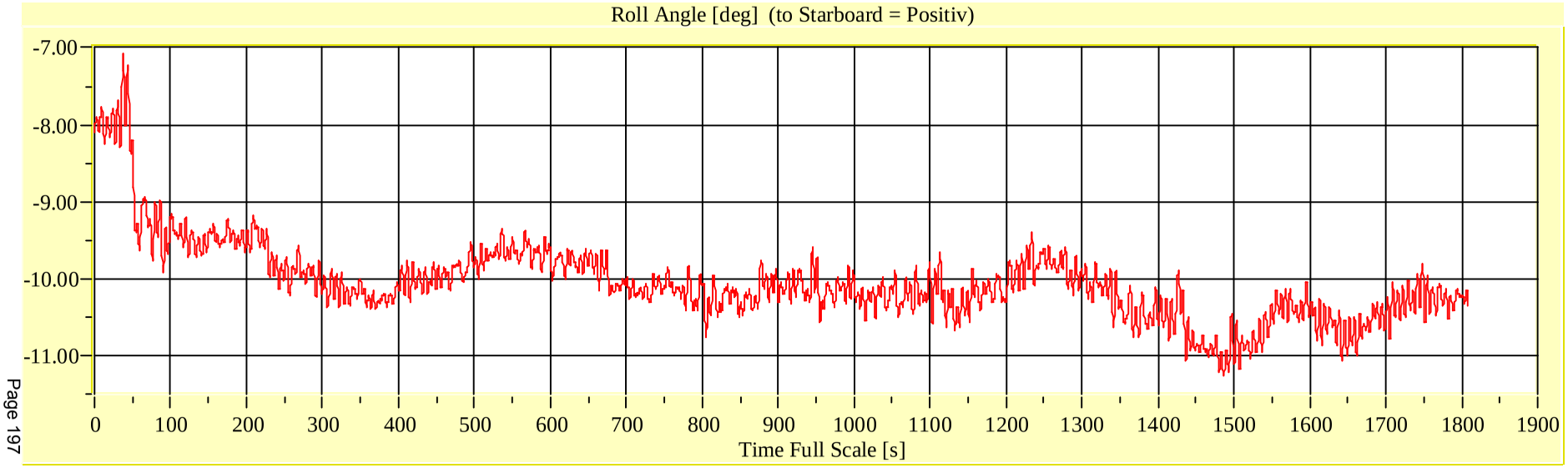


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-05	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

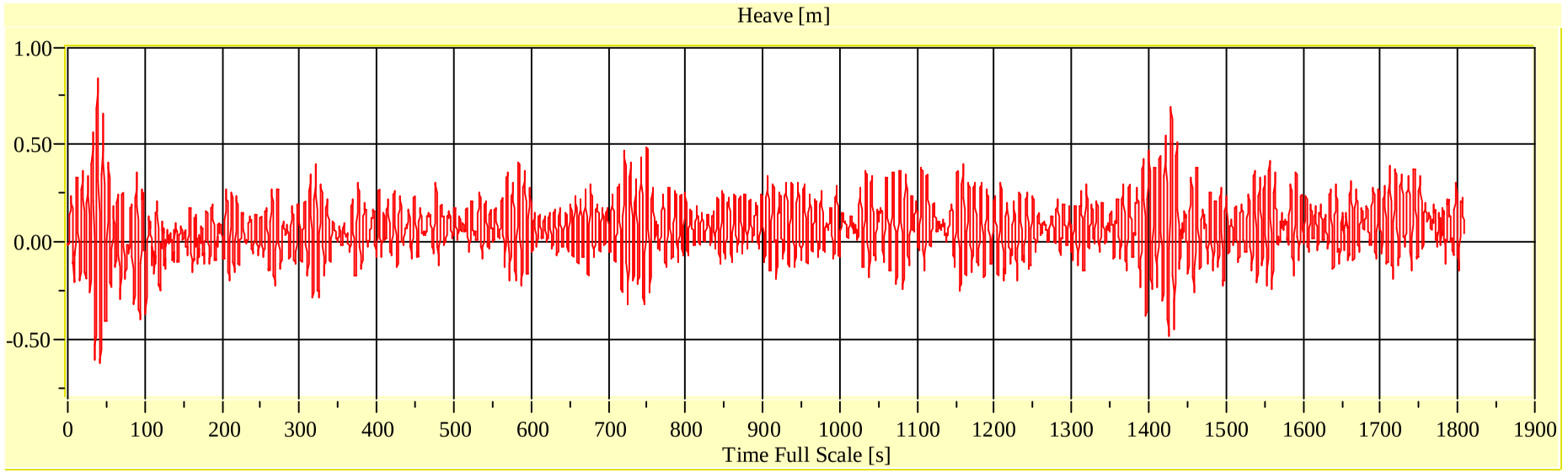


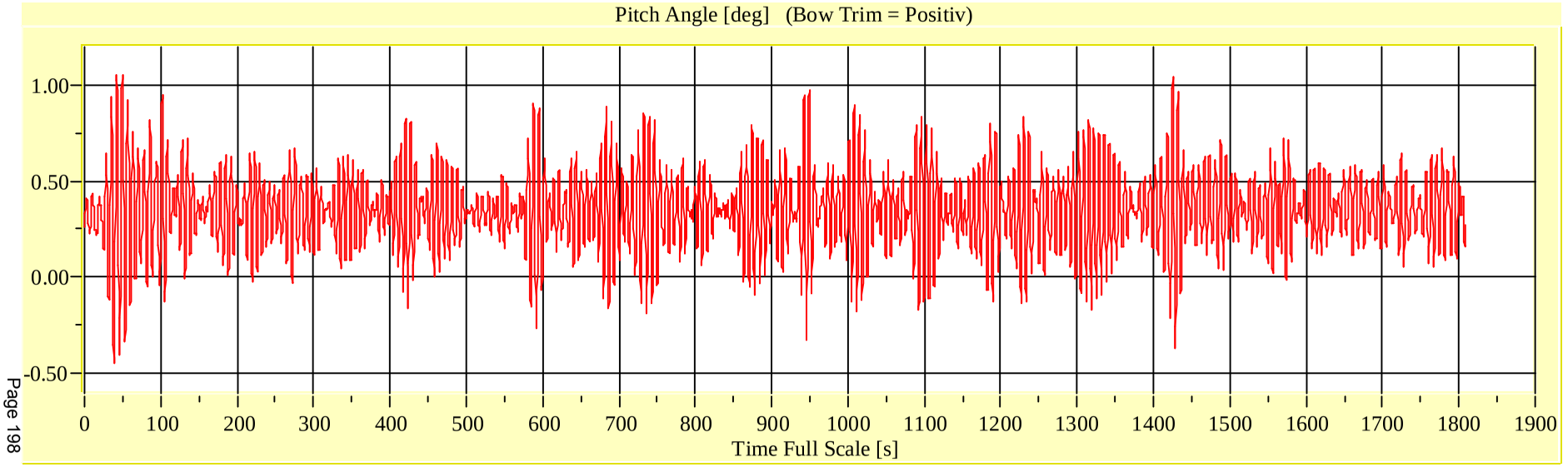


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-05	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3

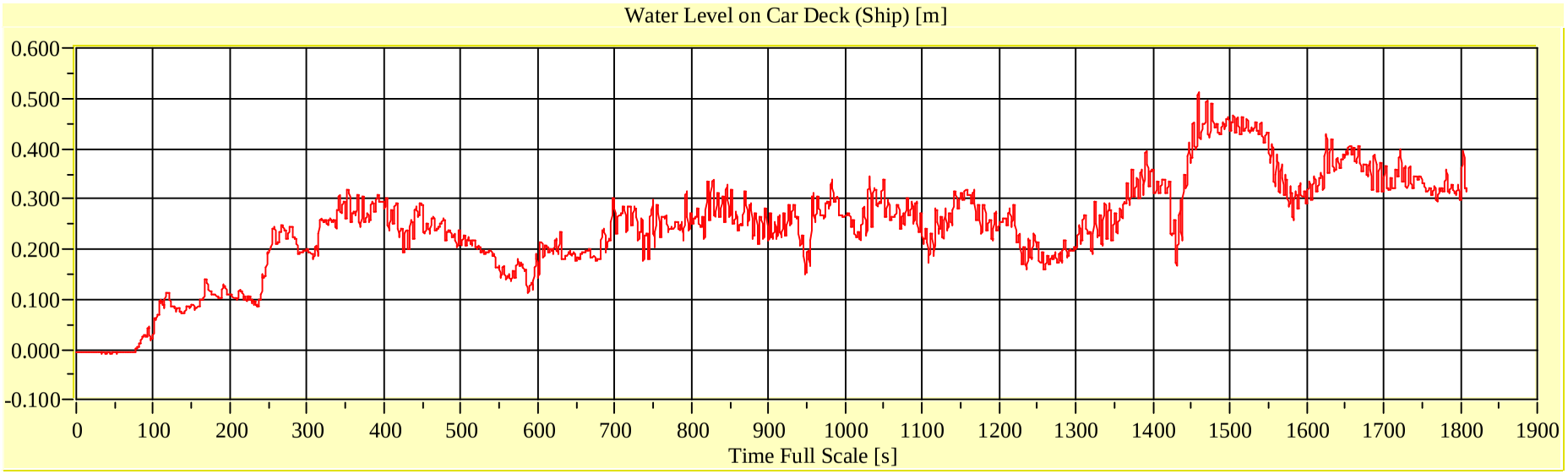




Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29734-05	Target Waves: Hs = 2,5 m Tp = 6,3246 s	gamma = 3,3



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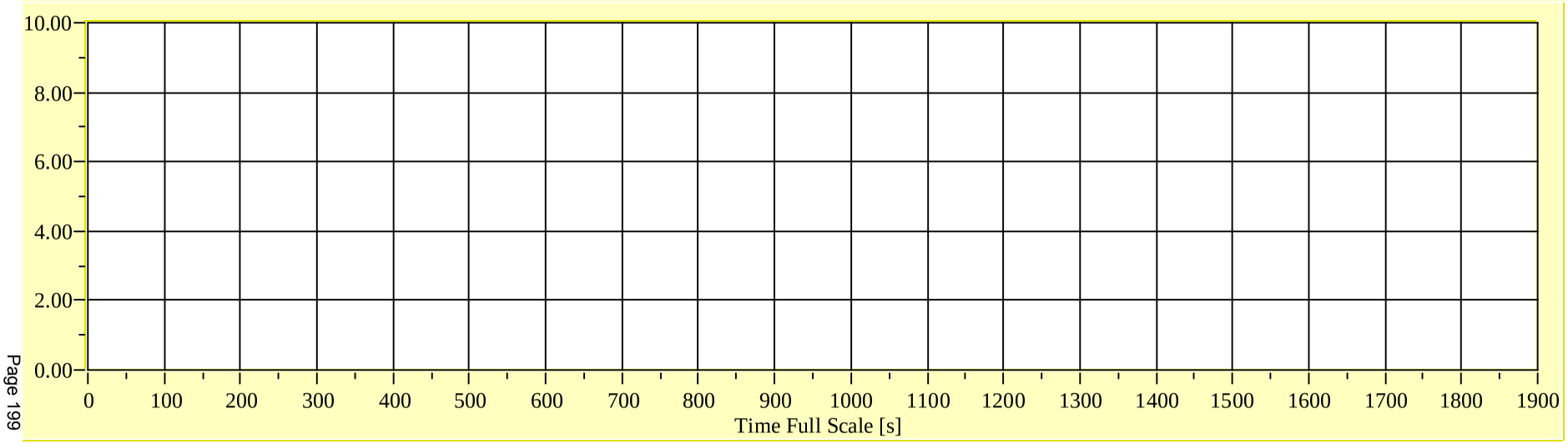
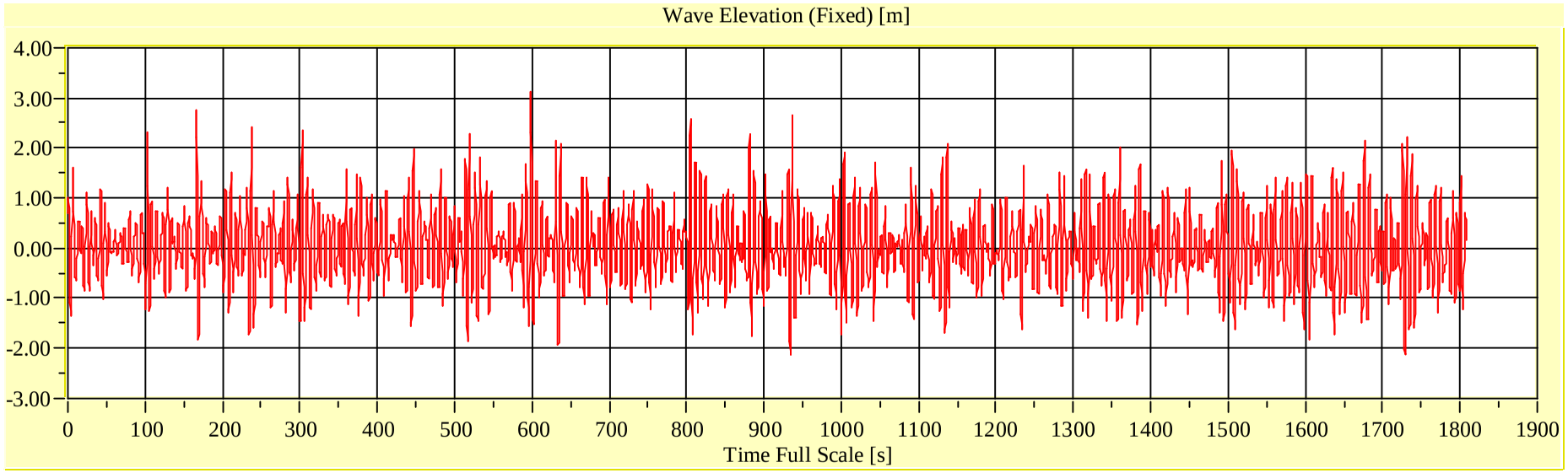
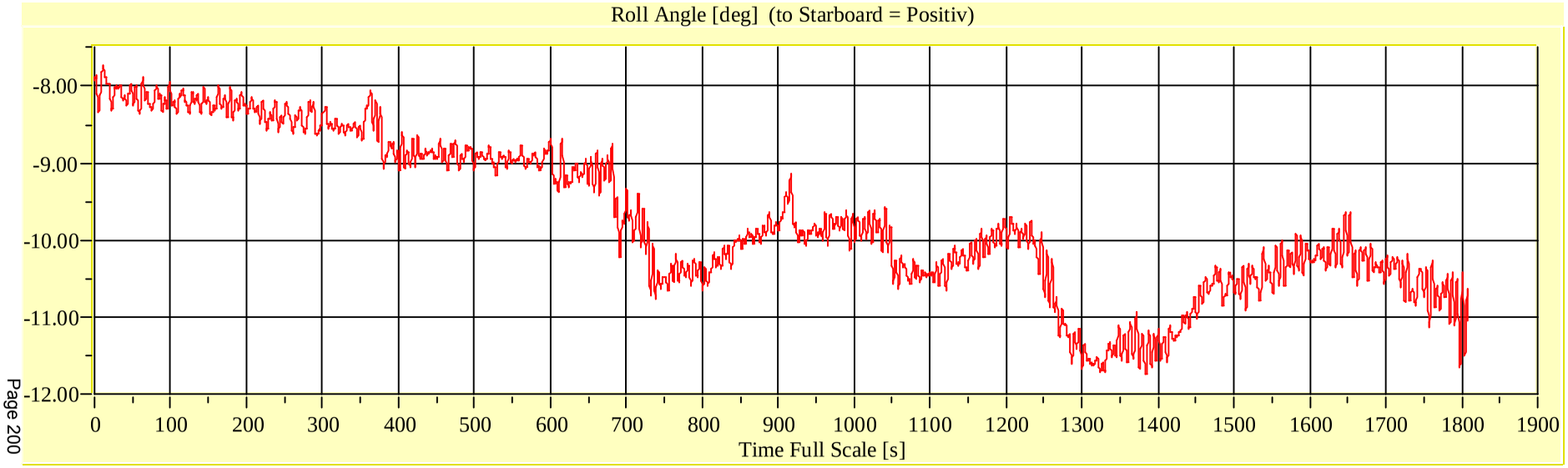


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-01	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

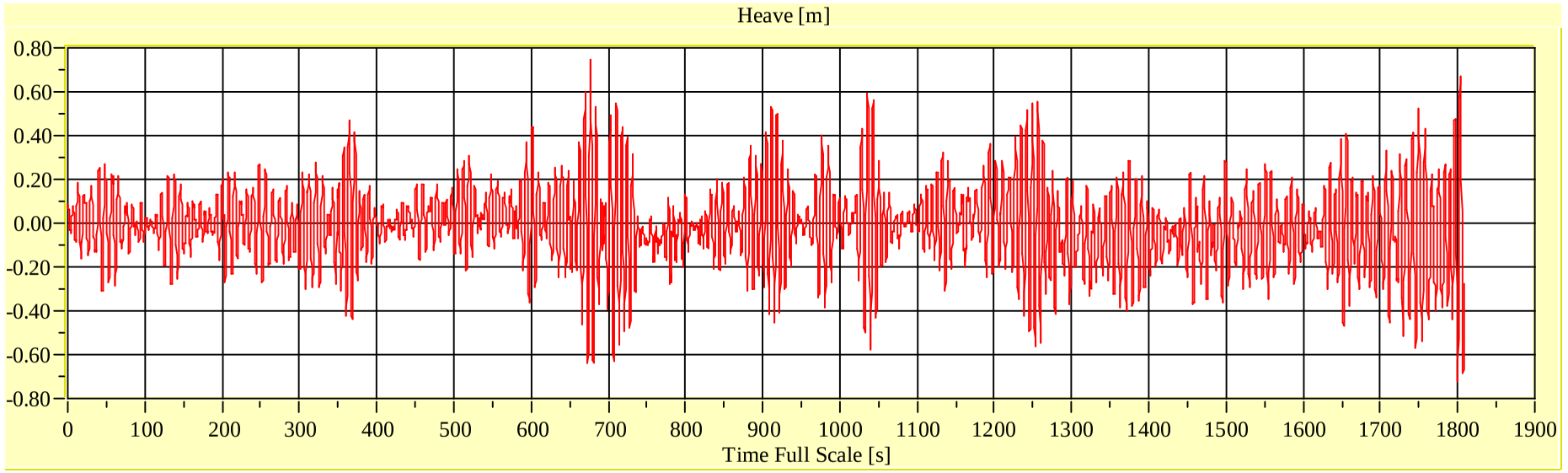


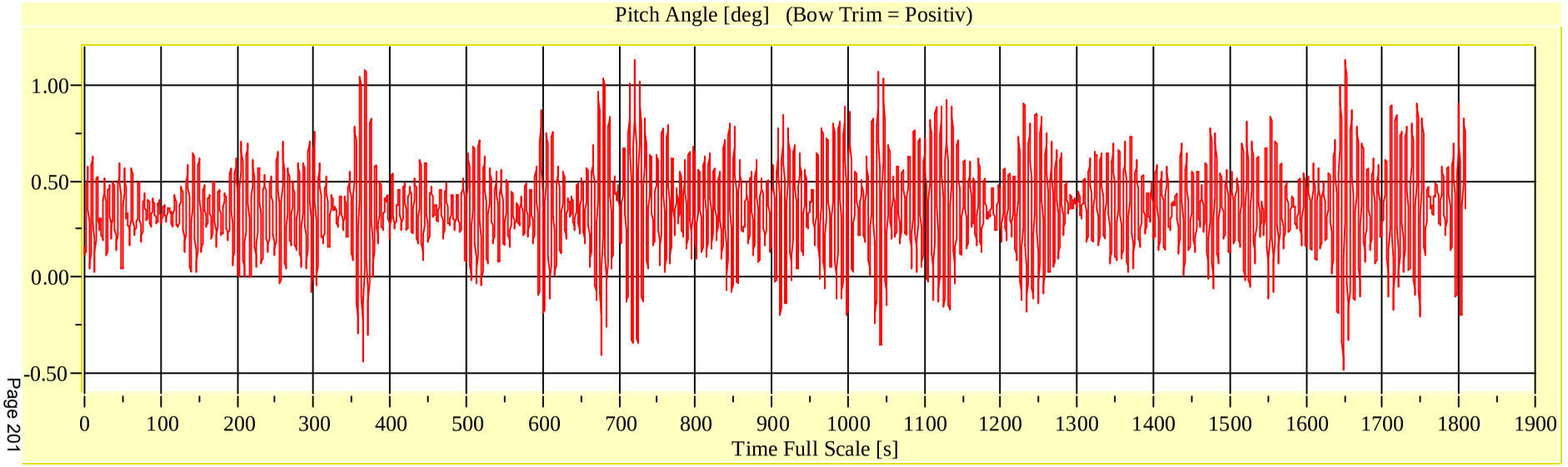


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-01	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

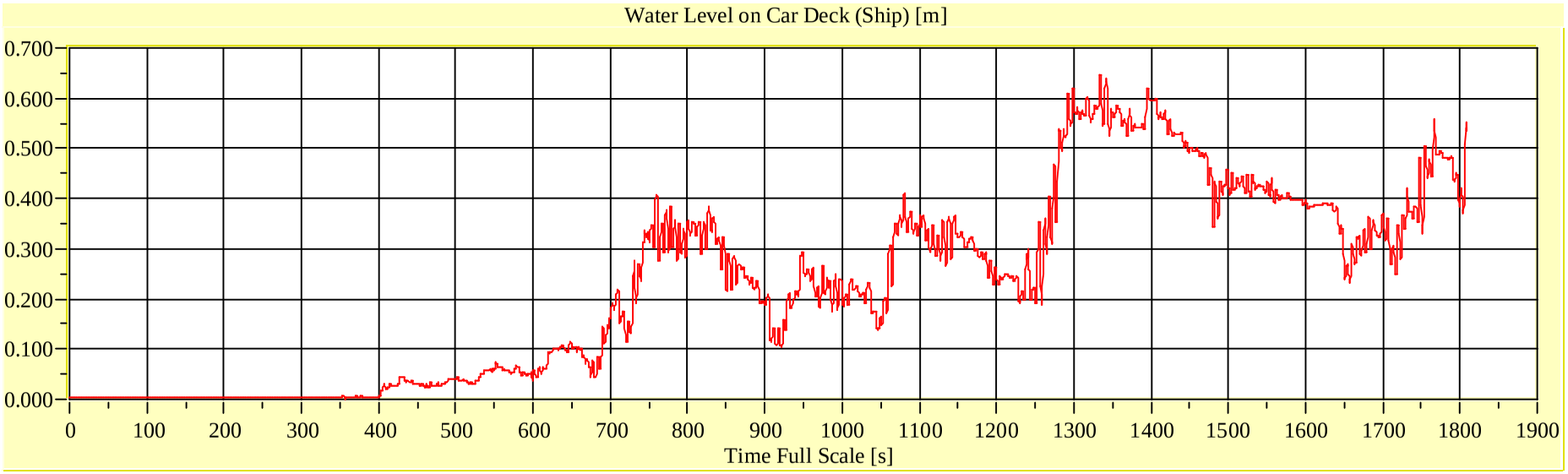


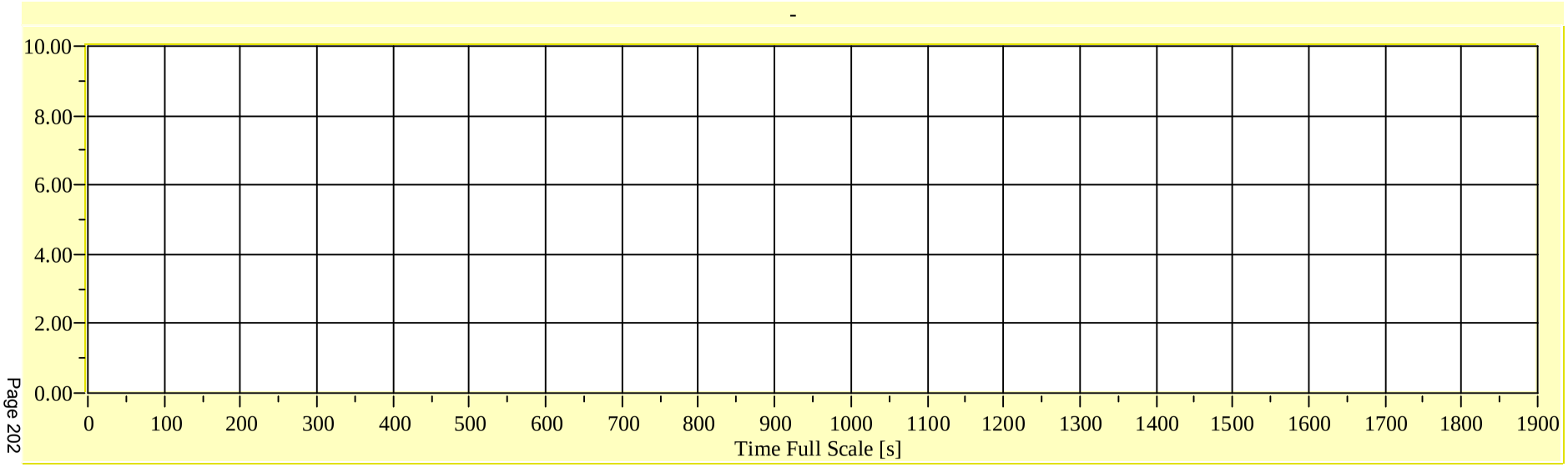


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-01	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

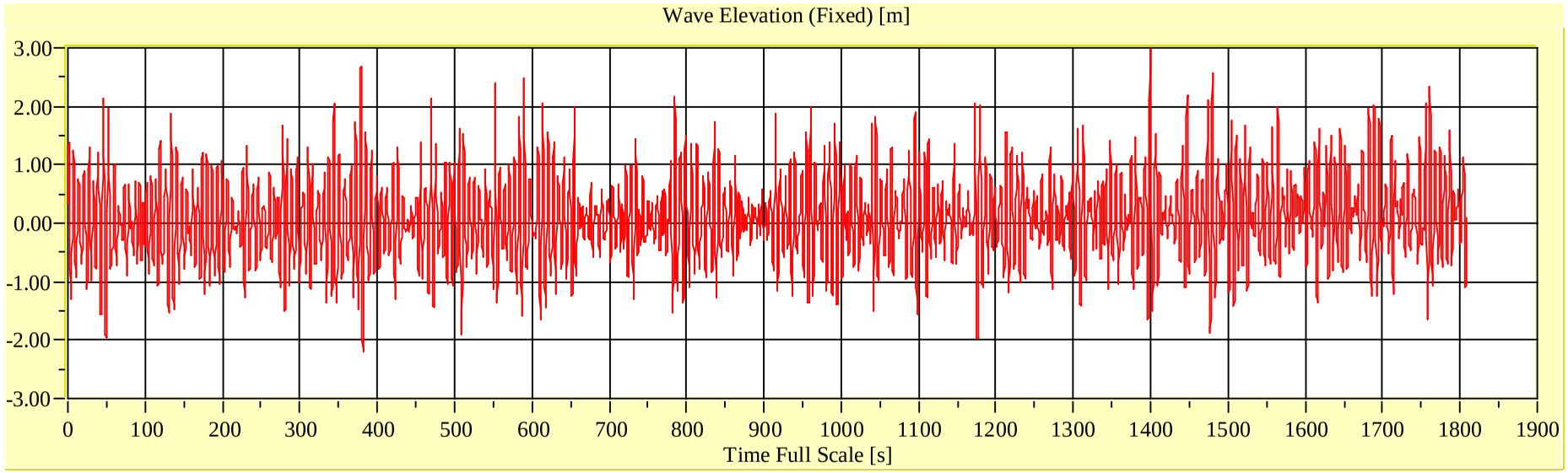


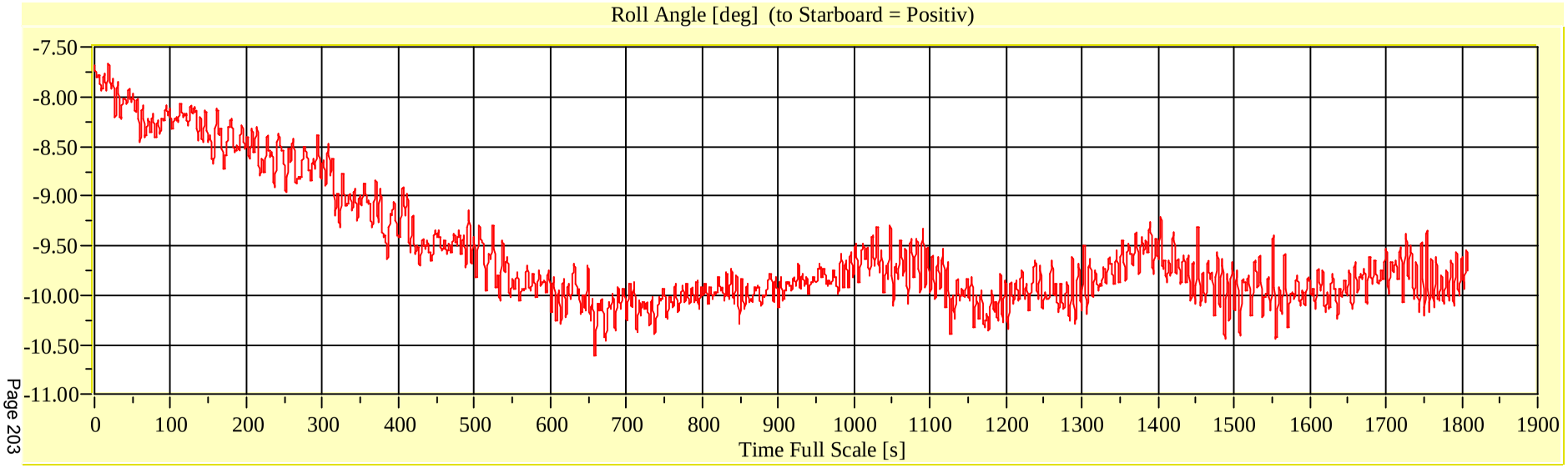


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-02	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

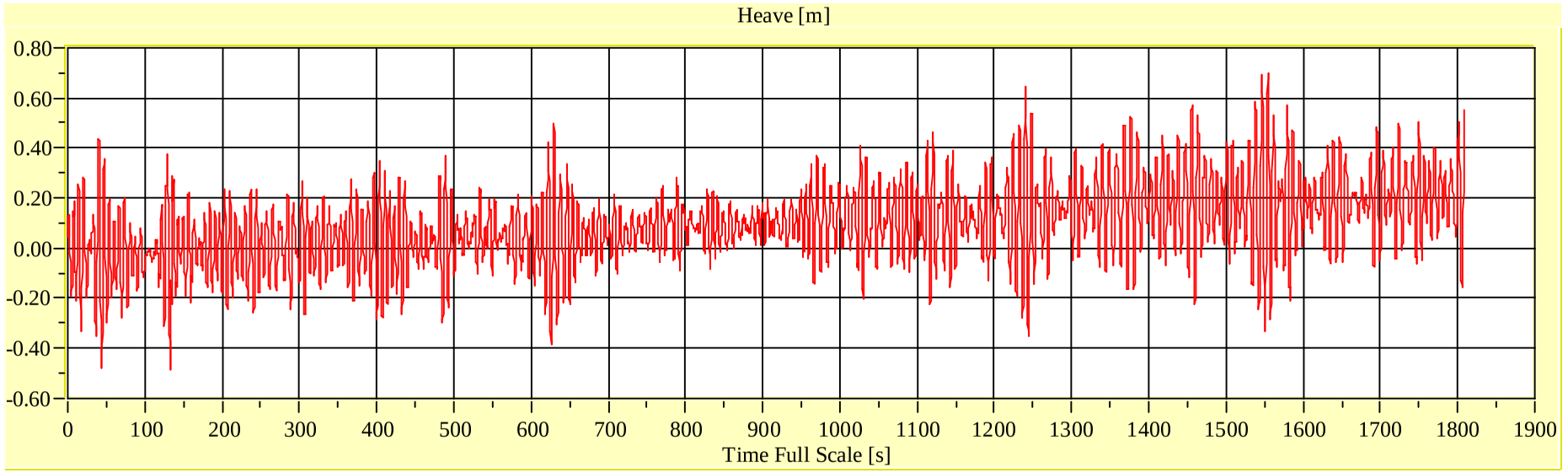


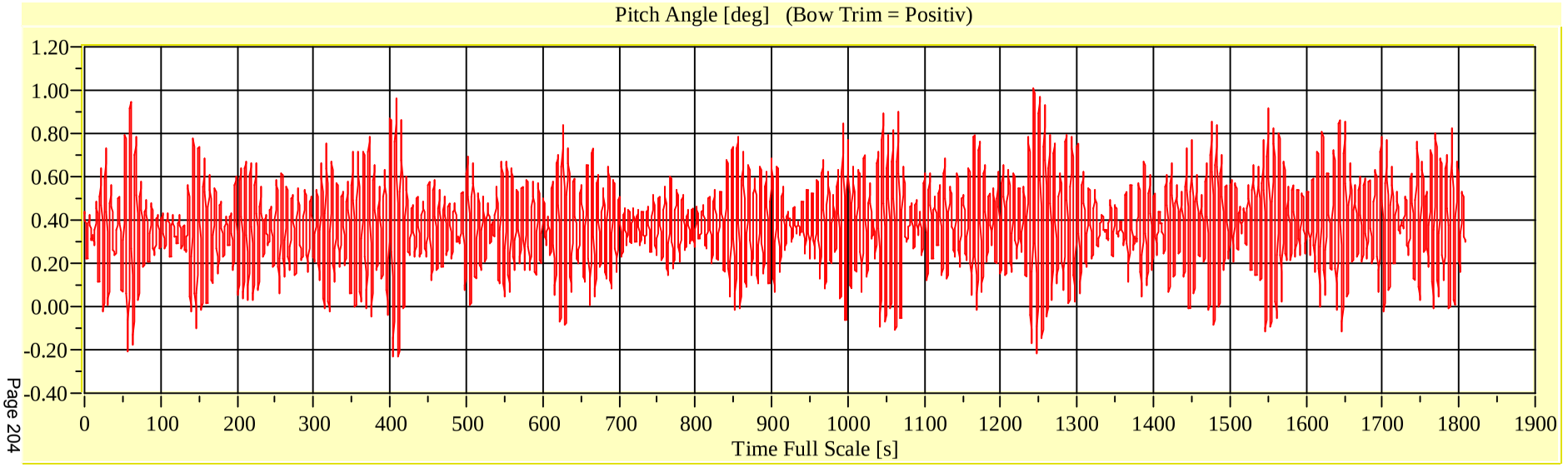


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-02	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

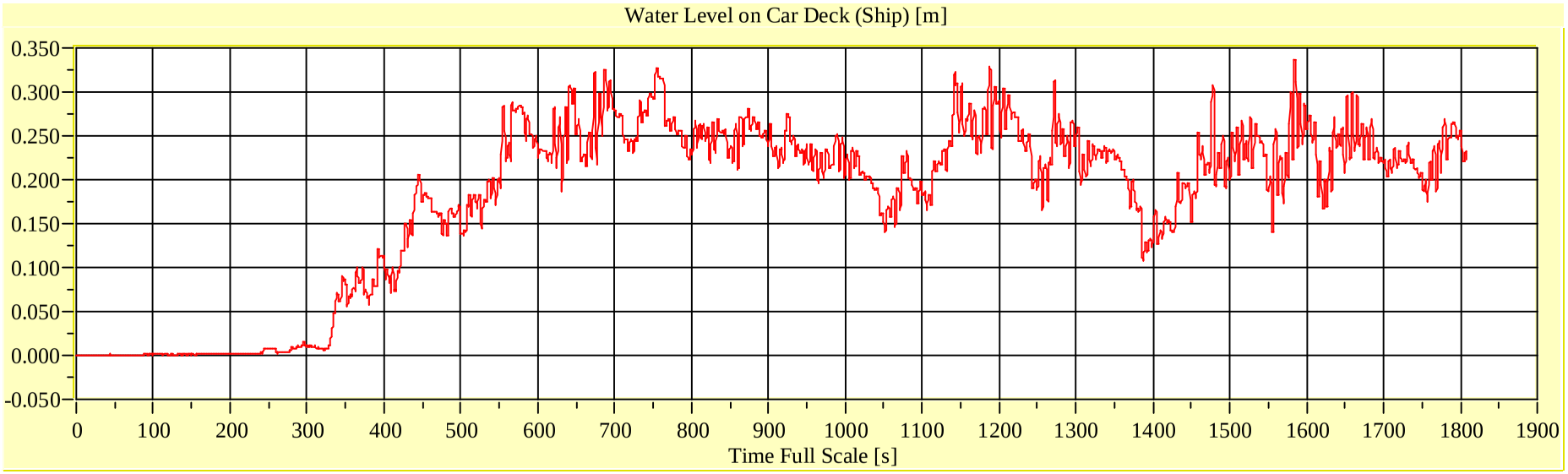


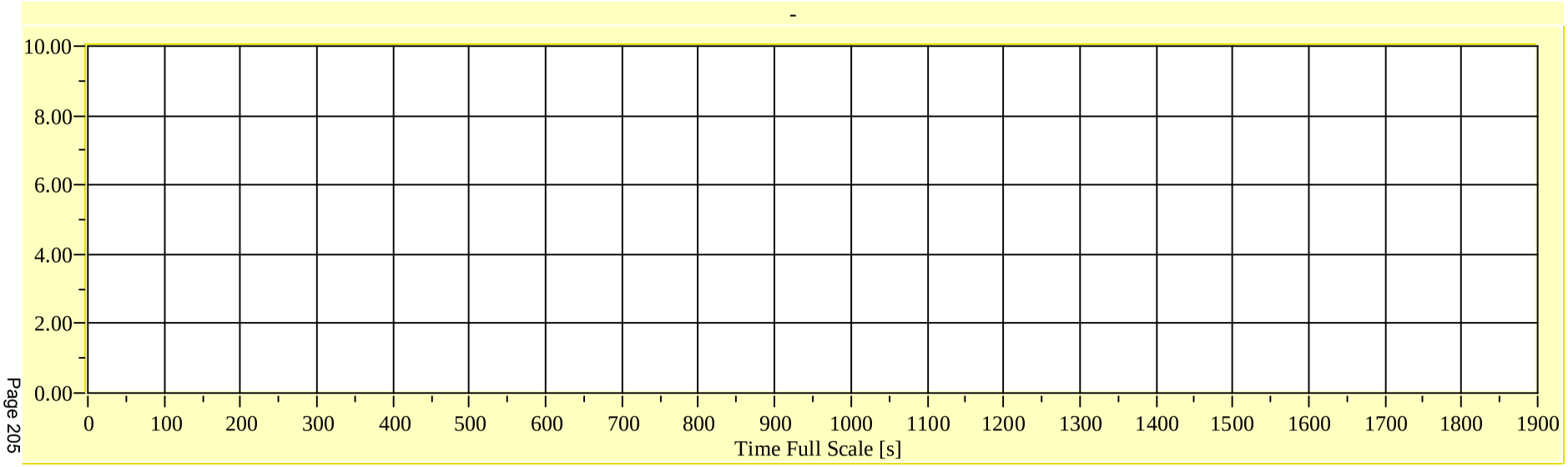


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-02	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

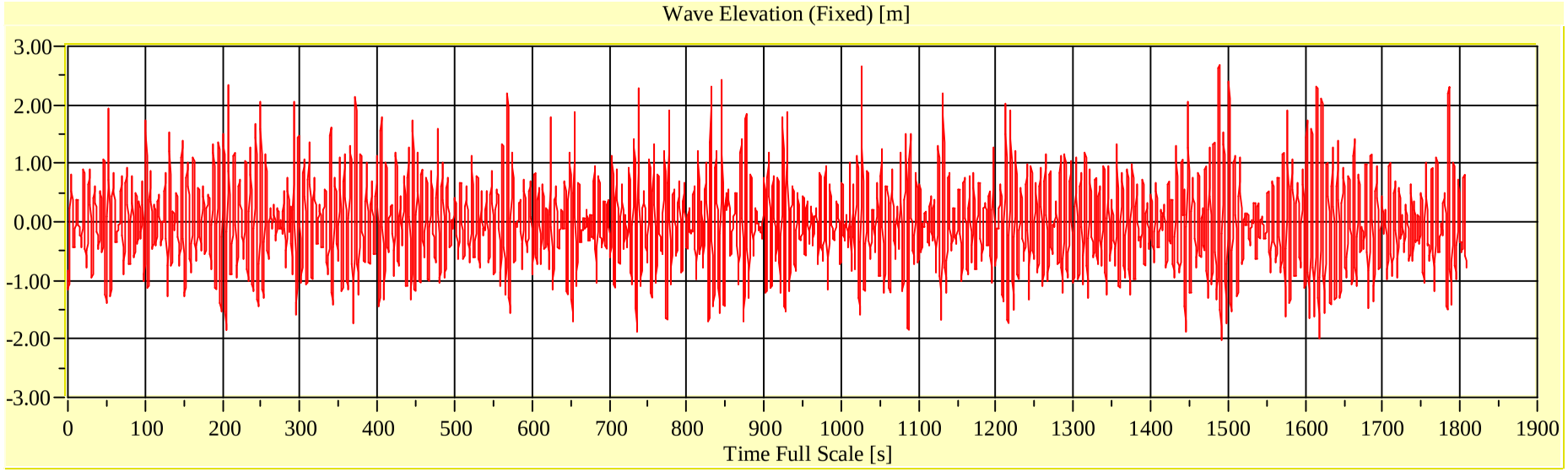


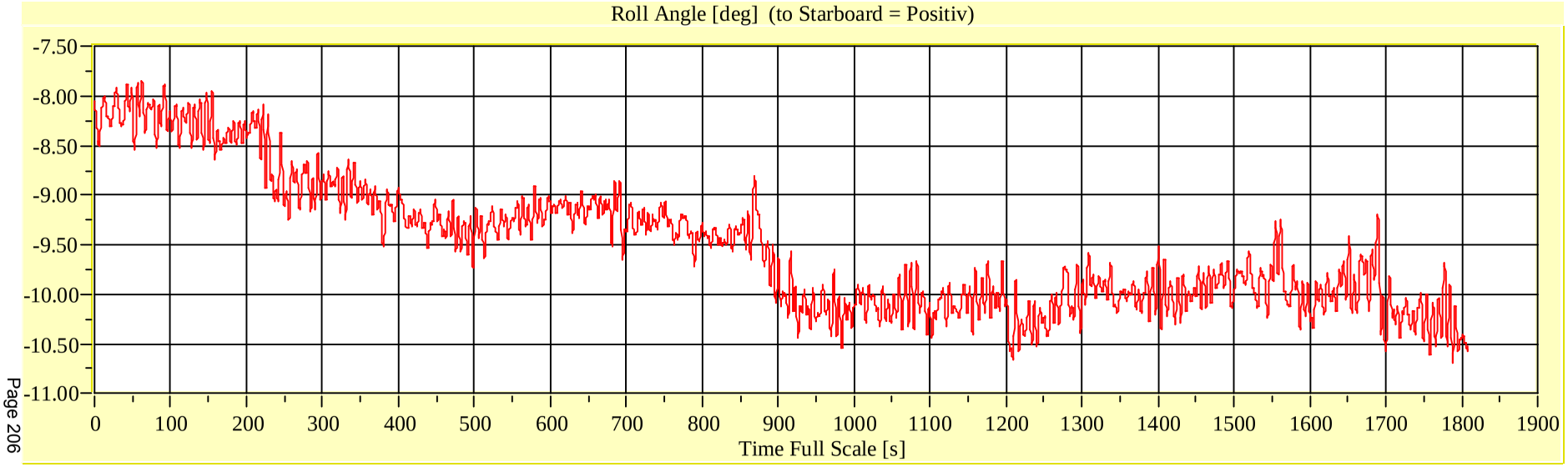


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-03	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

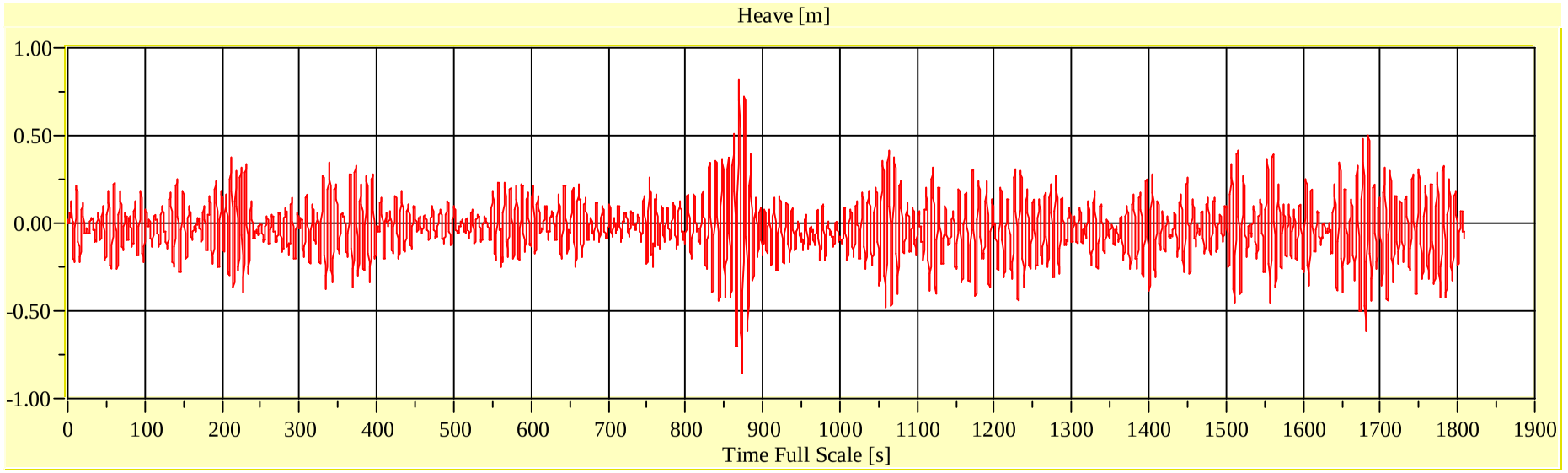


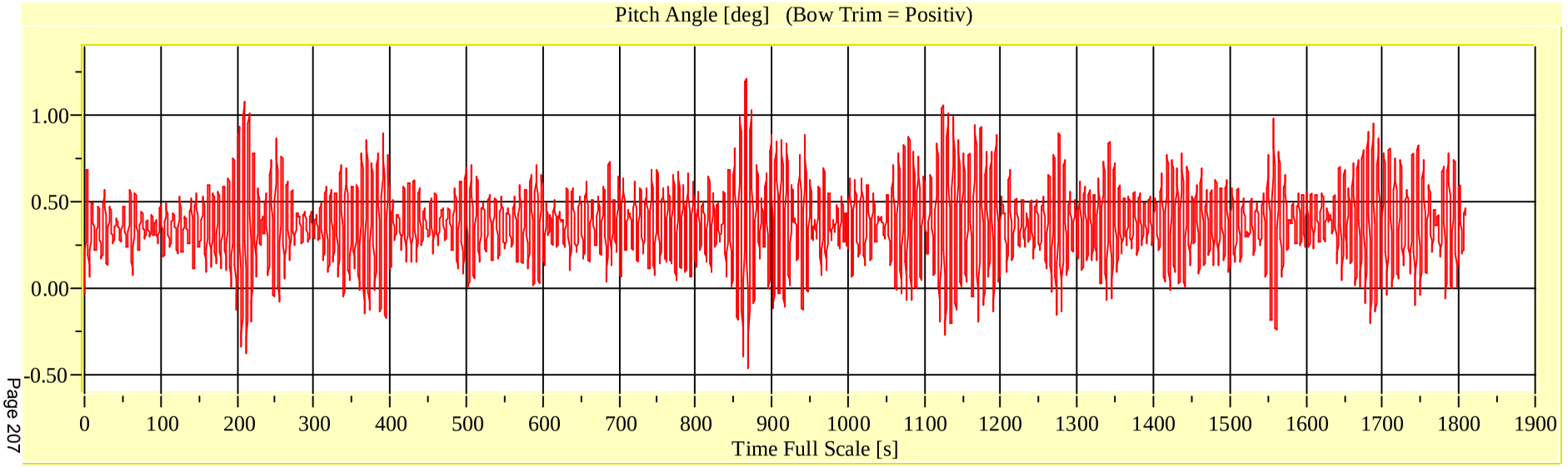


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-03	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

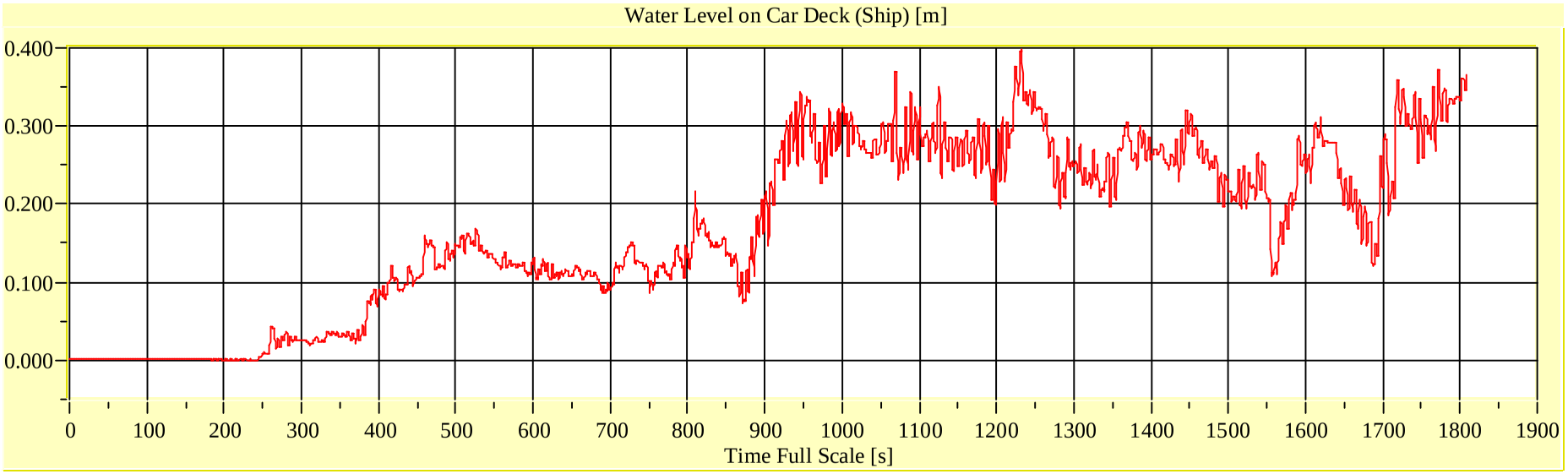


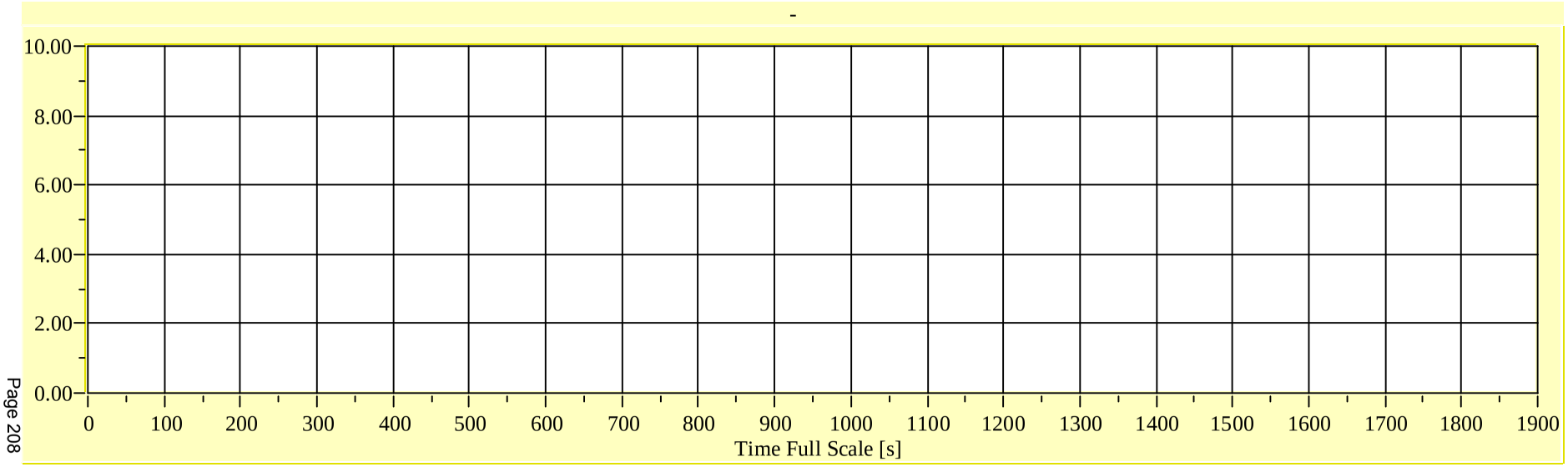


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-03	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

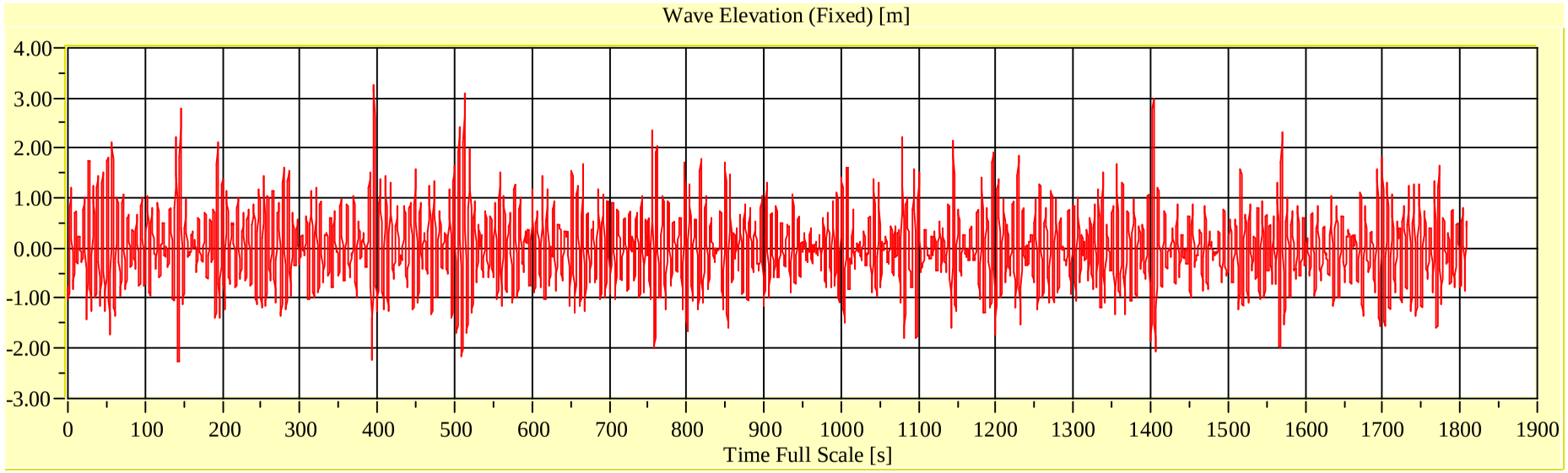


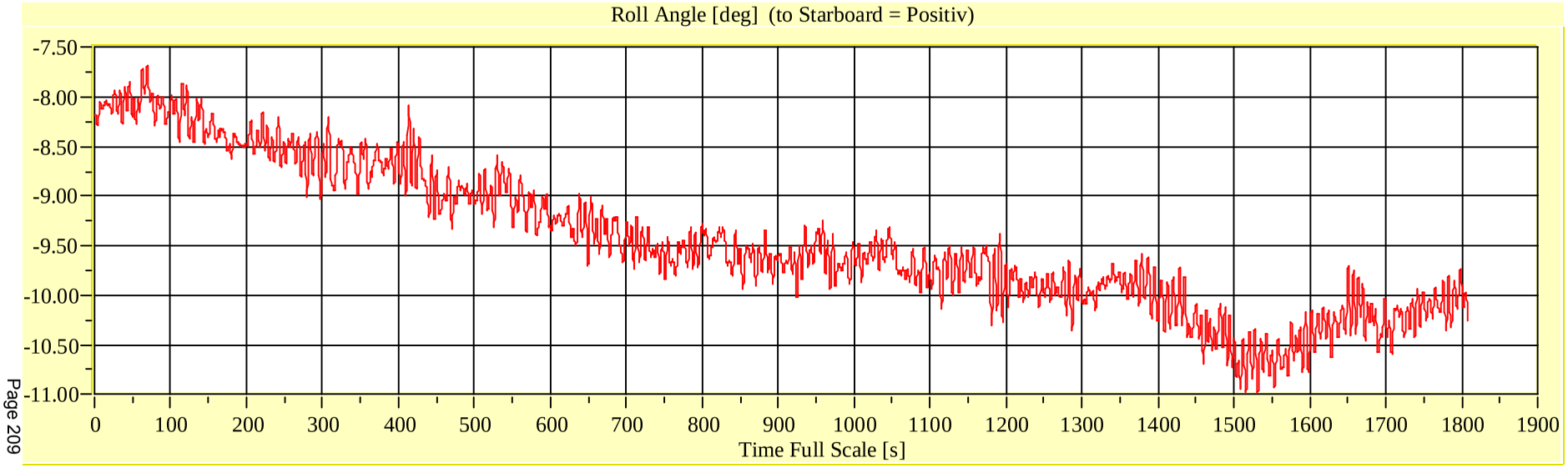


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-04	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

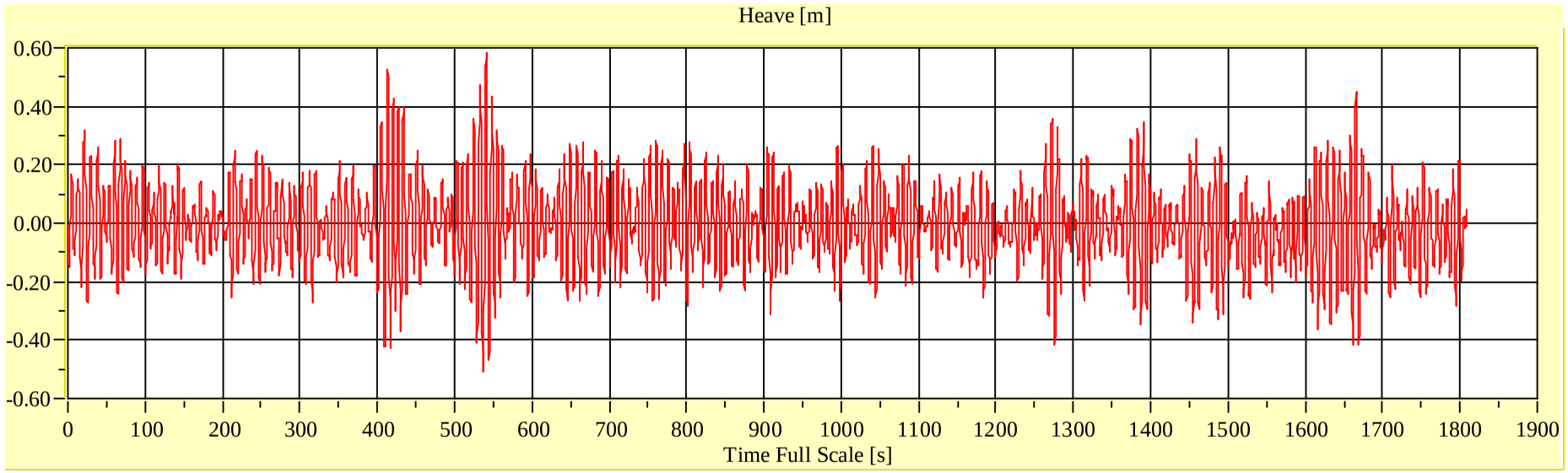


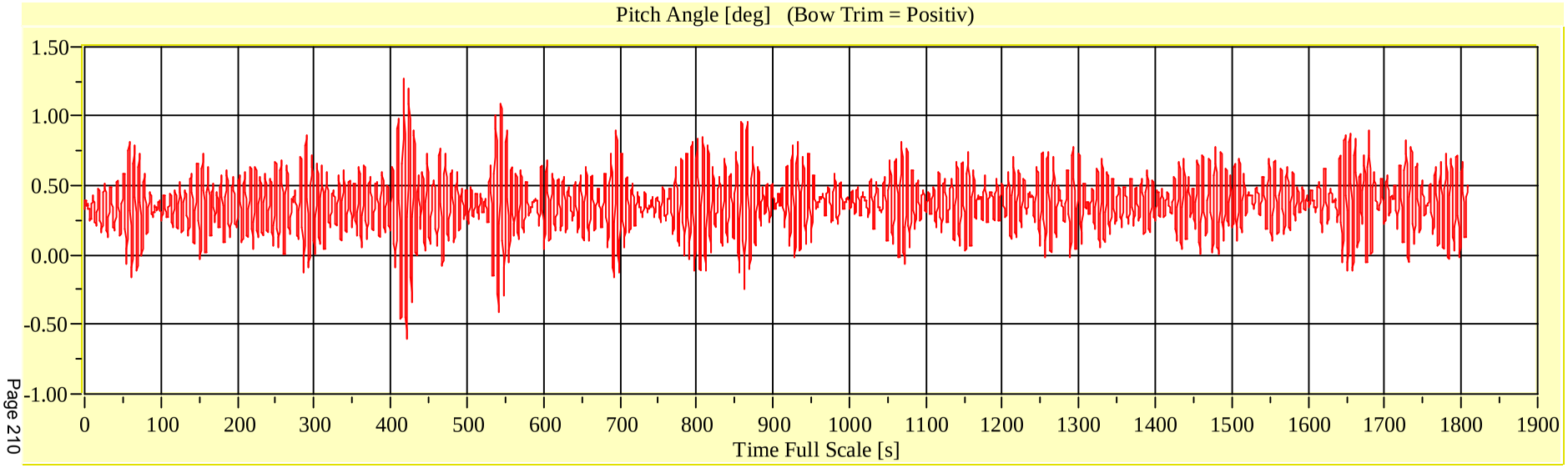


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-04	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

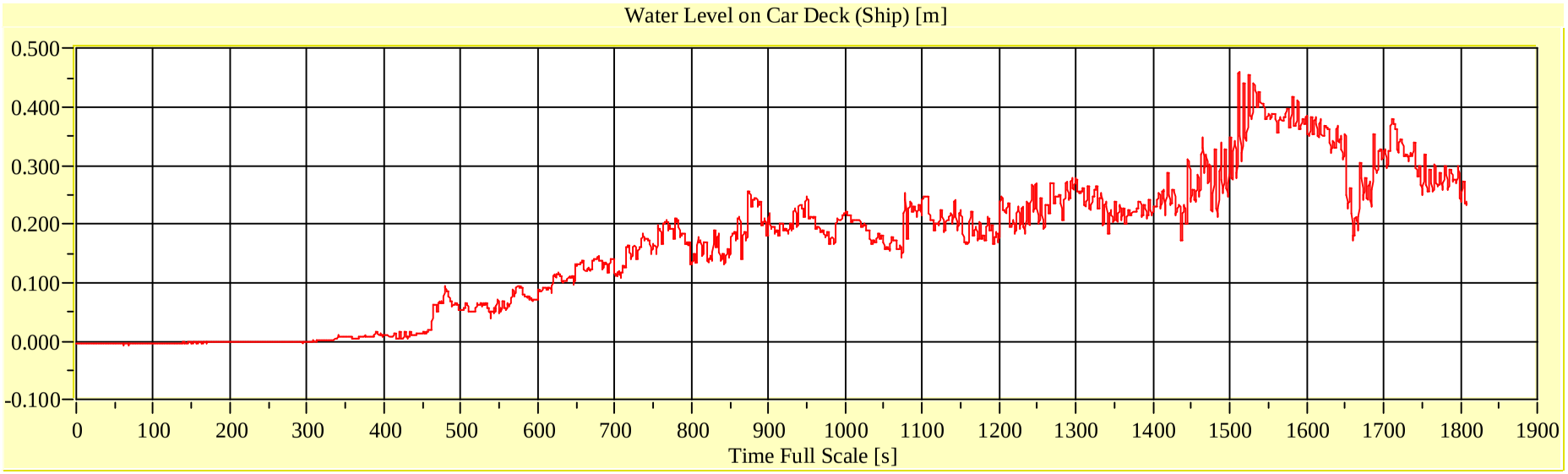


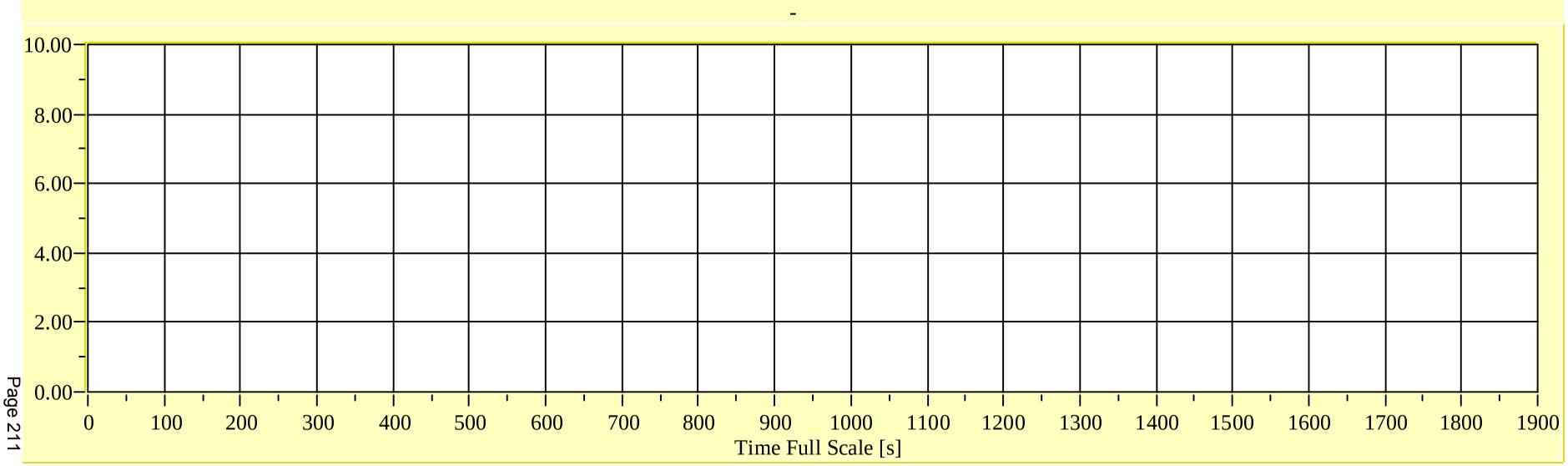


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-04	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

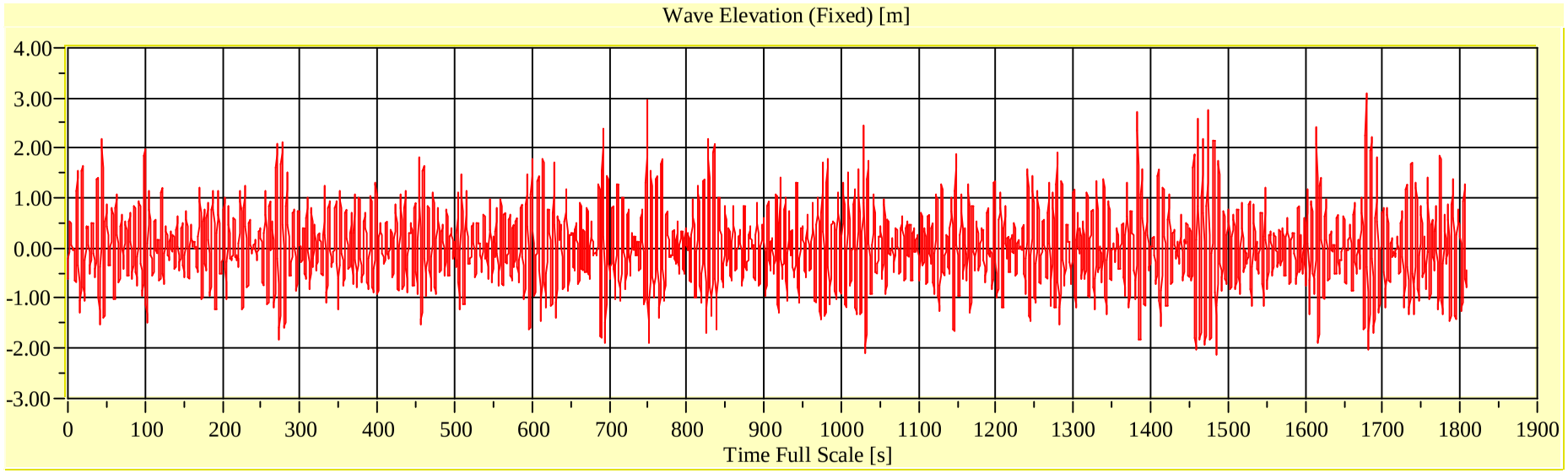


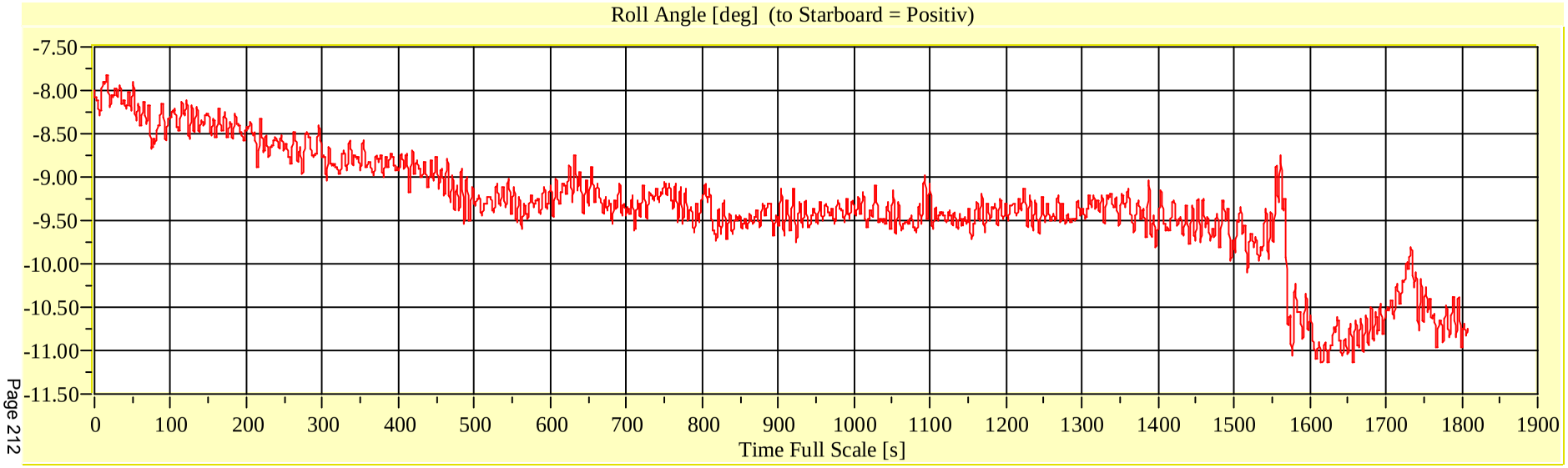


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-05	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

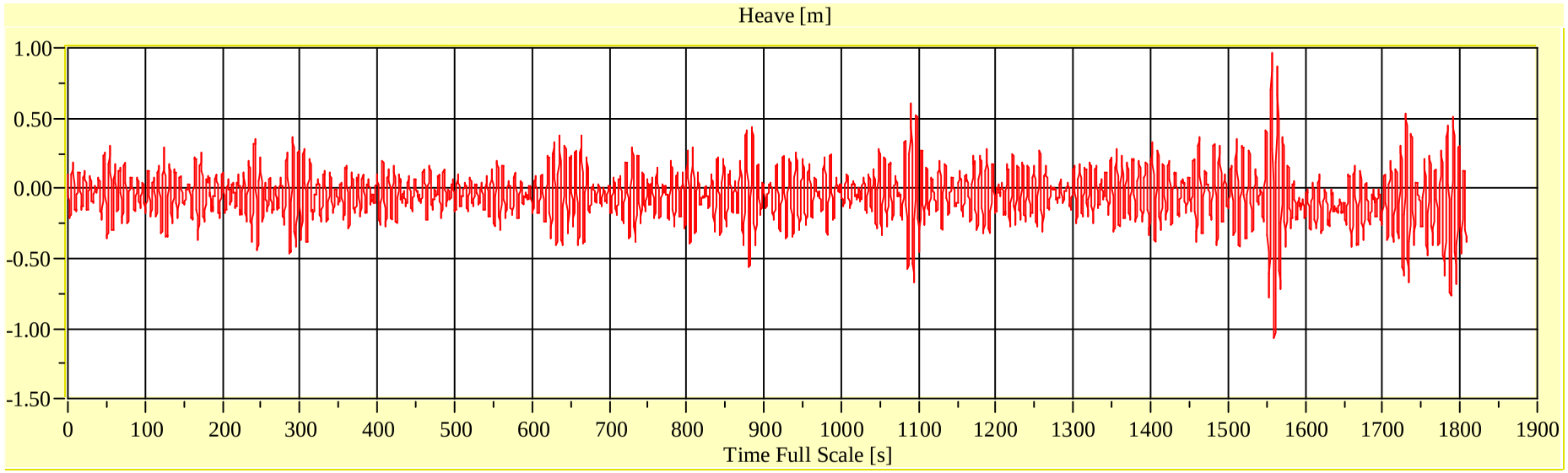


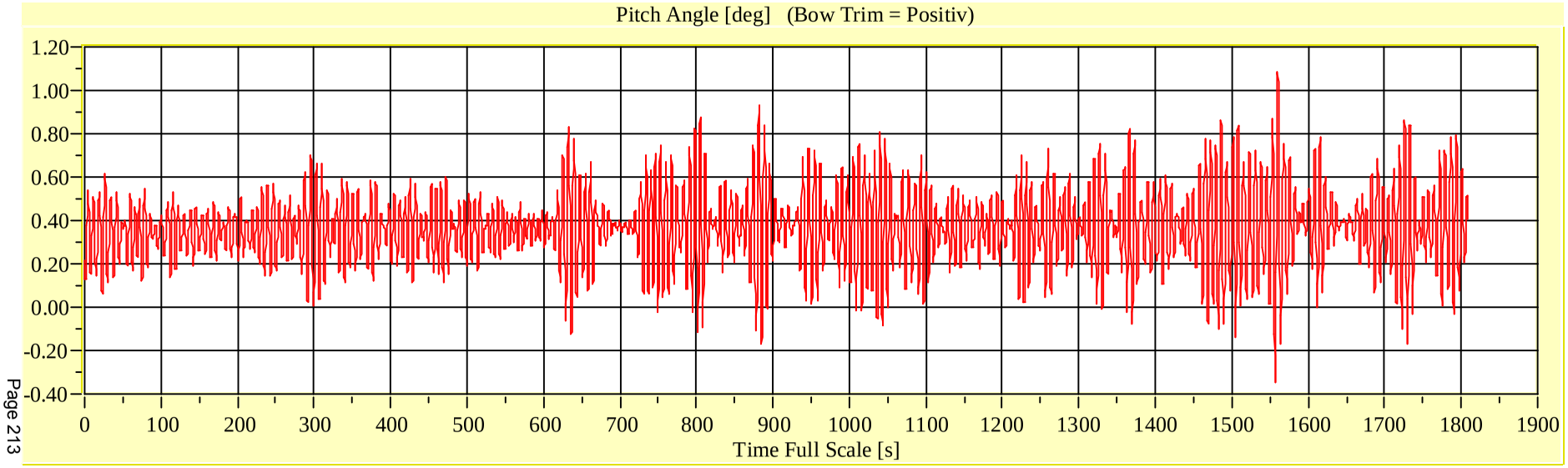


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-05	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

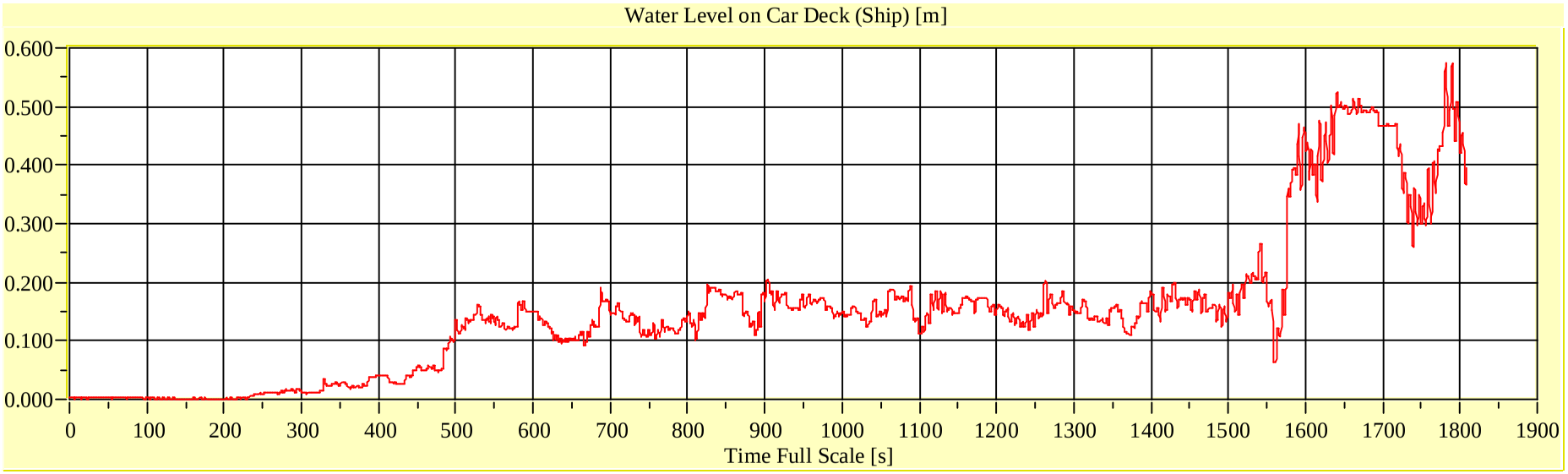




Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-05	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3



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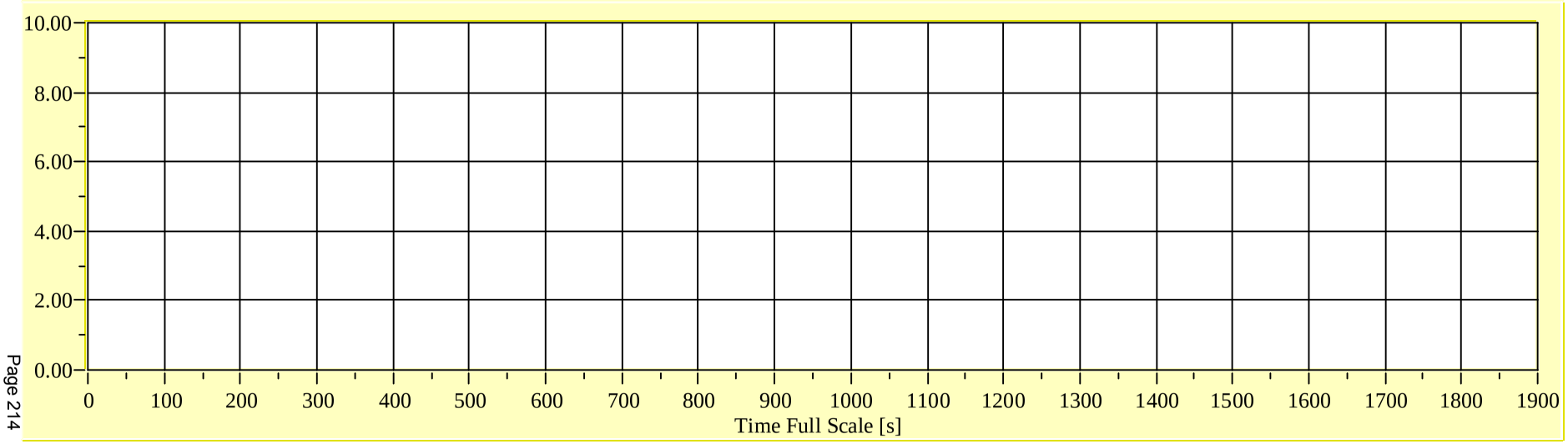
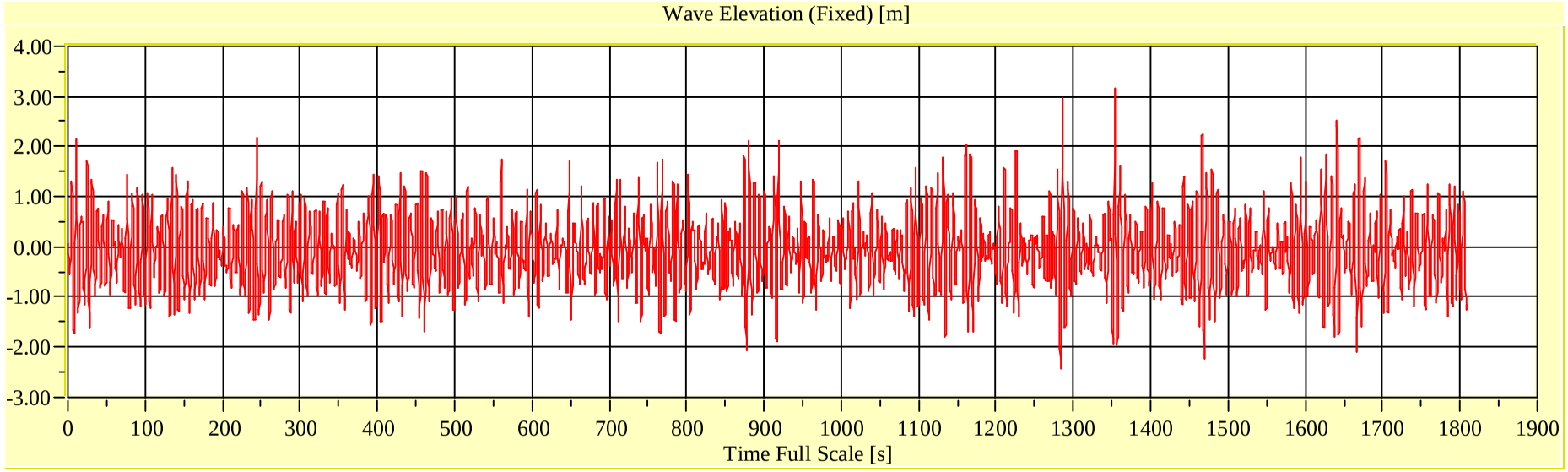
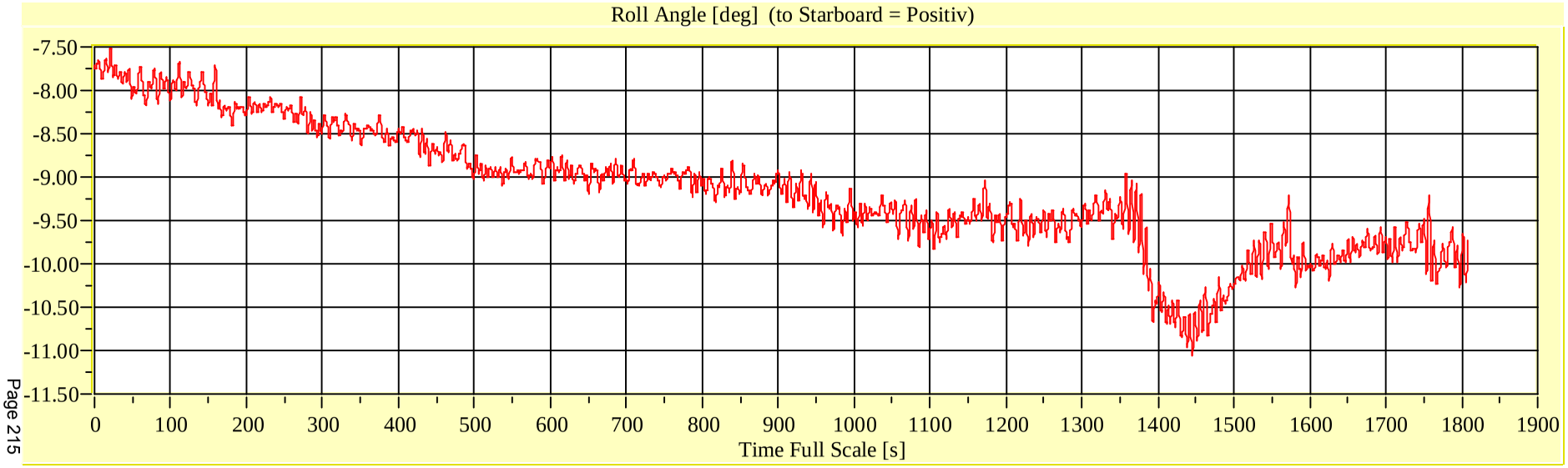


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-06	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

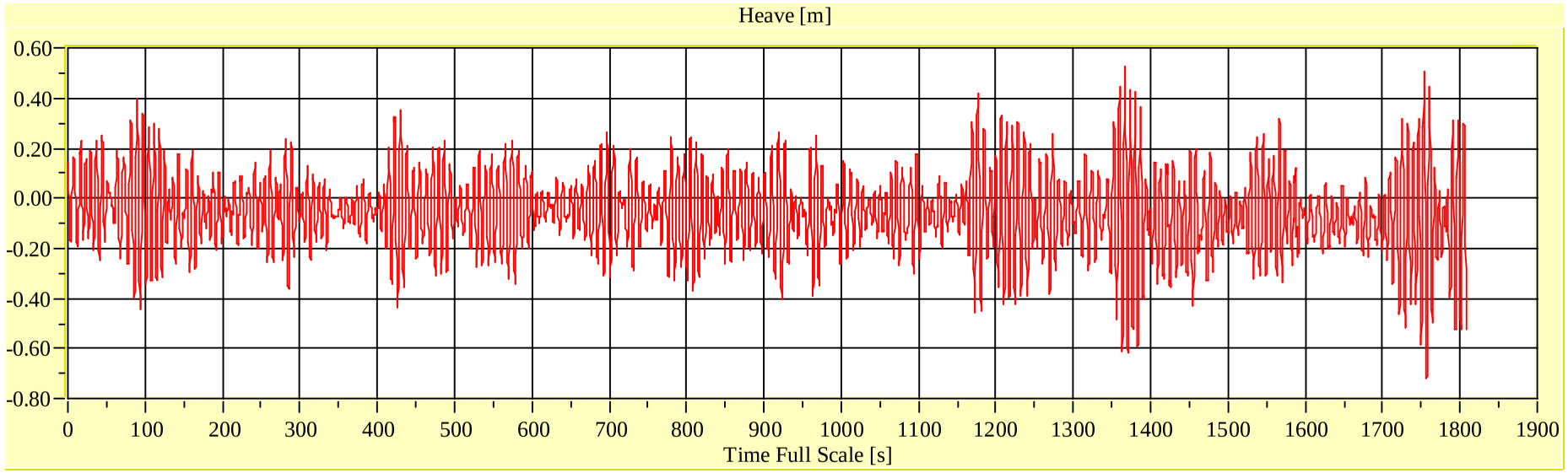


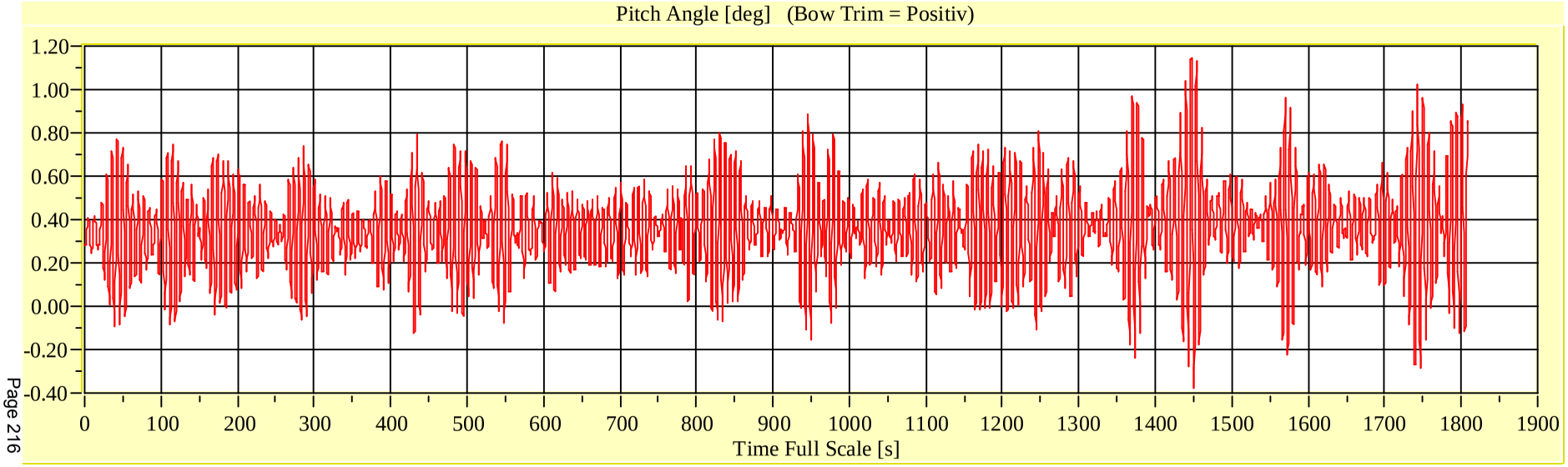


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-06	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

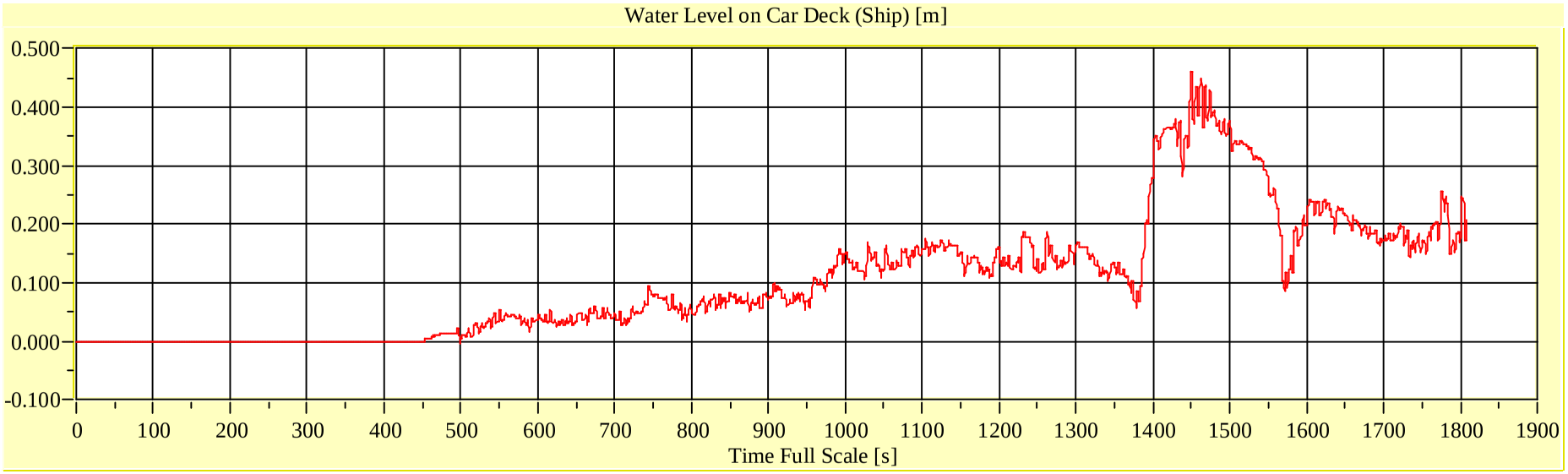




Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-06	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3



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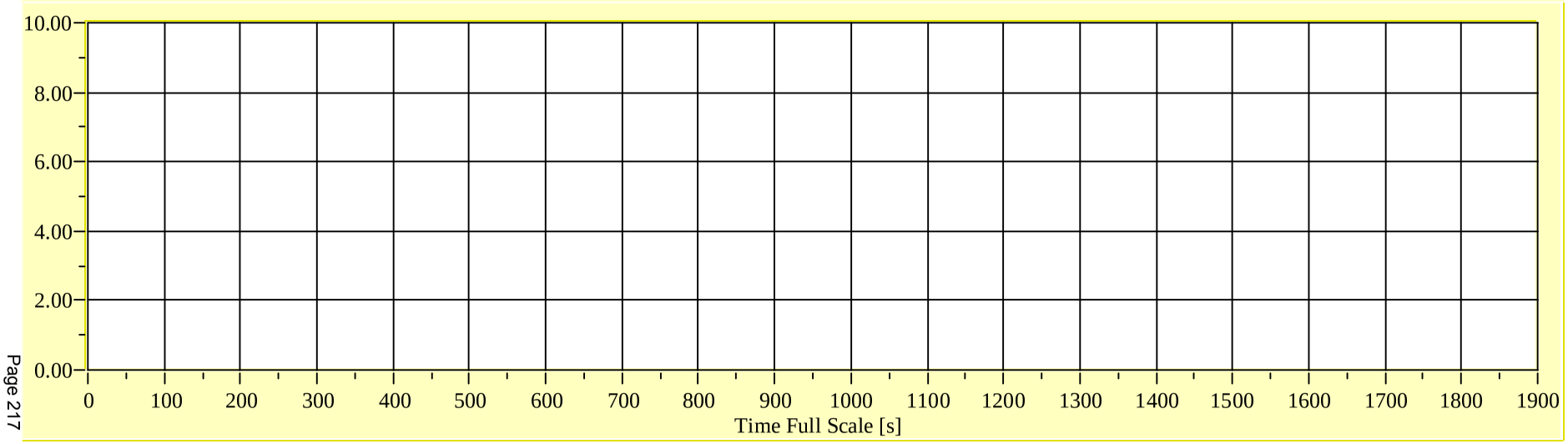
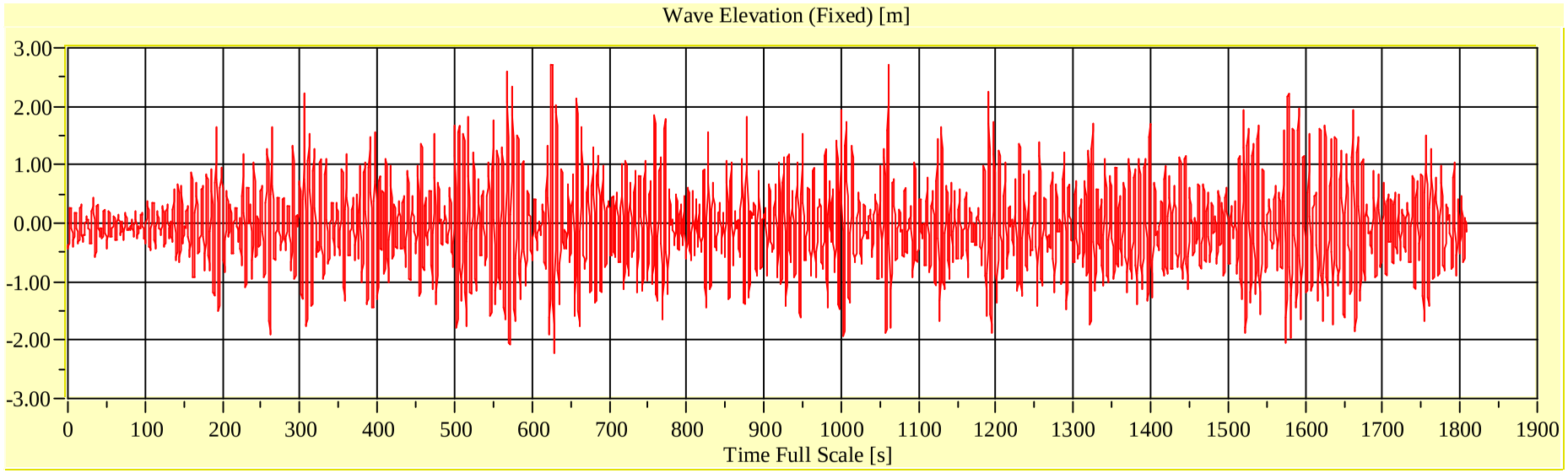
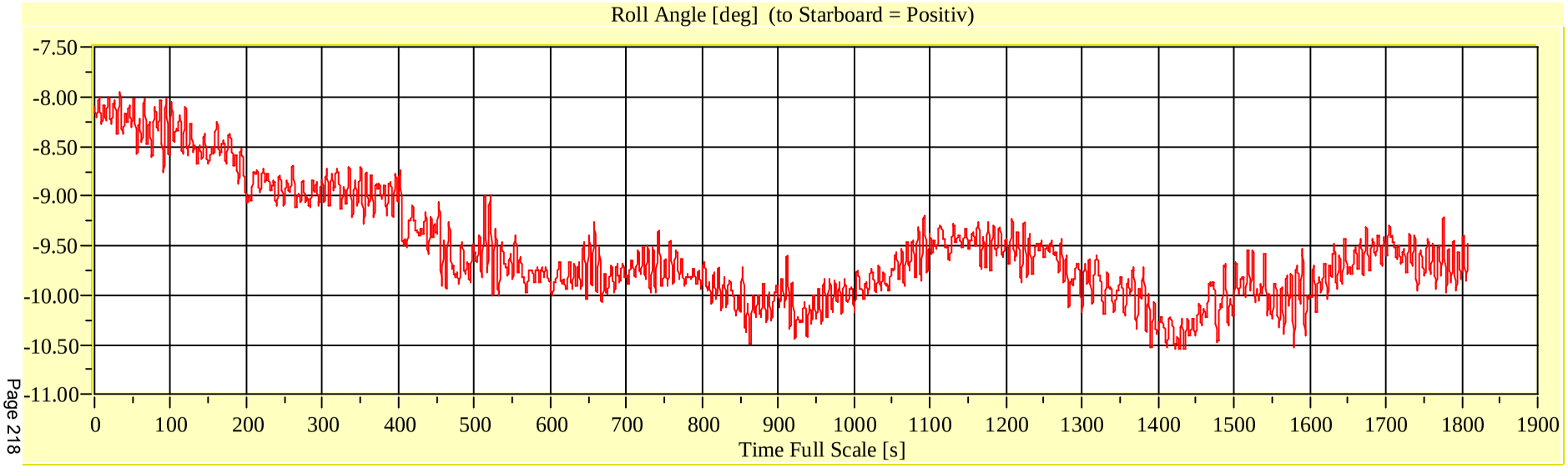


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-07	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

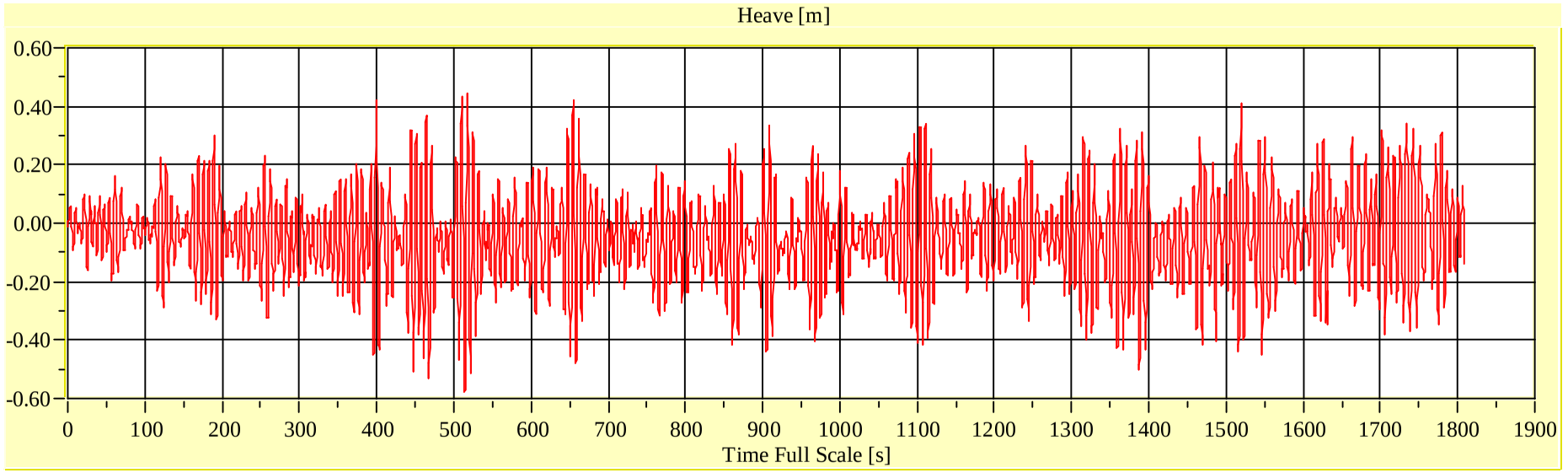


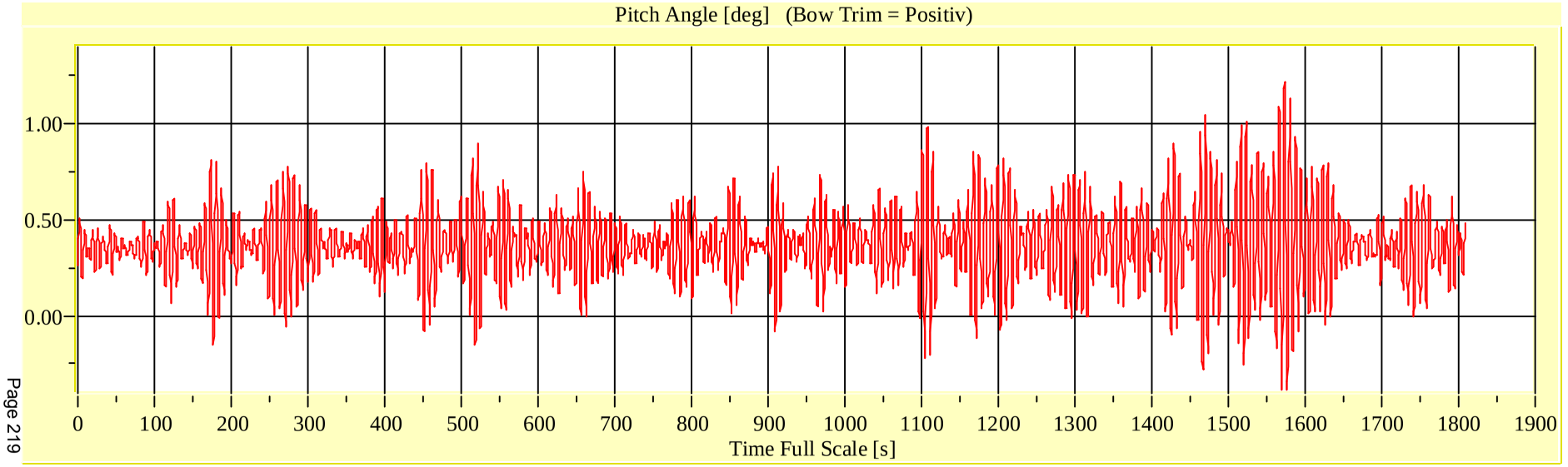


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-07	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

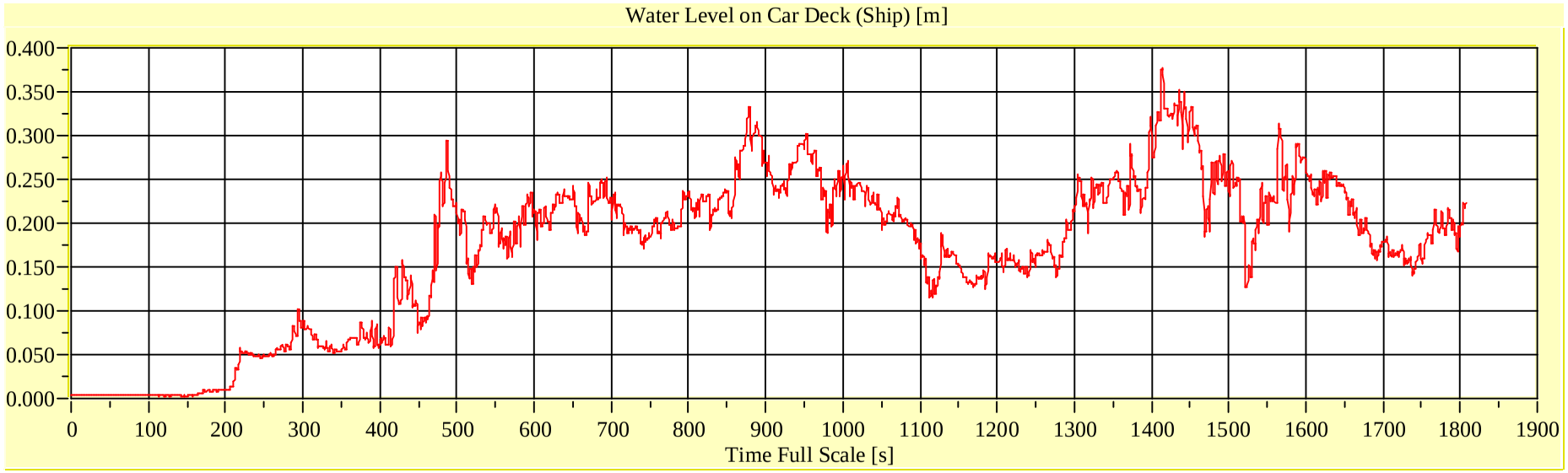


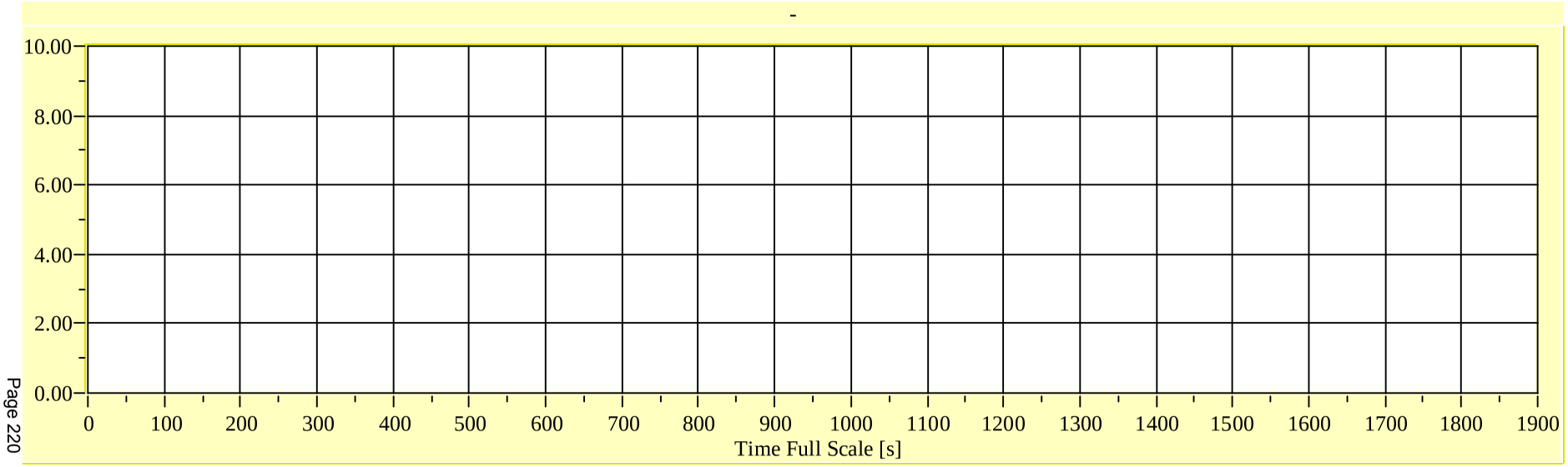


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-07	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

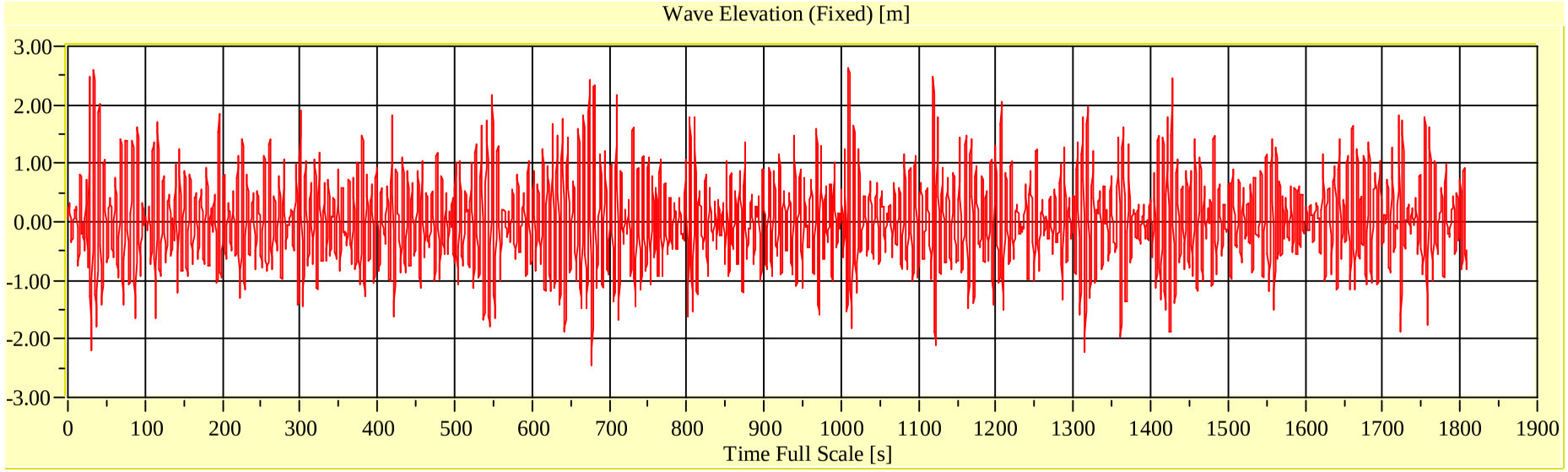


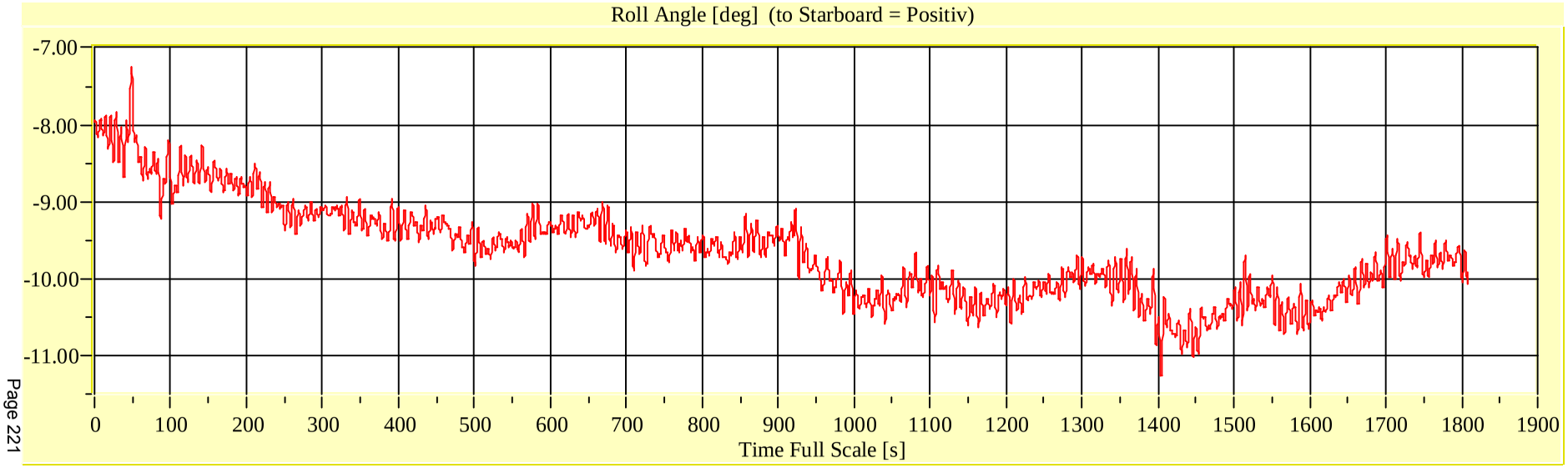


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-08	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

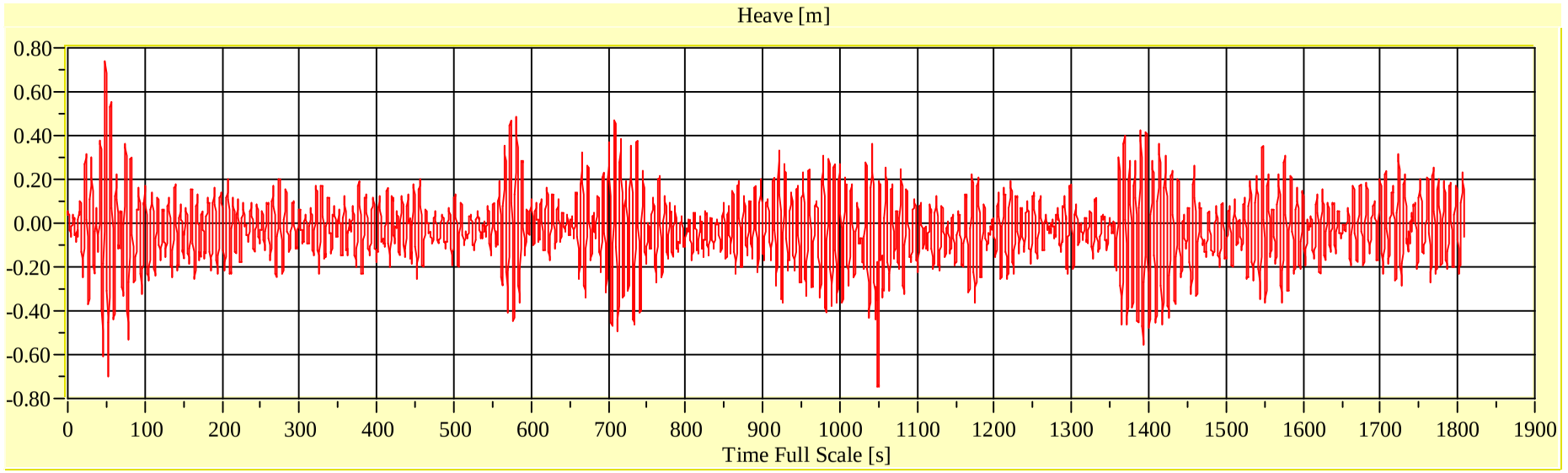


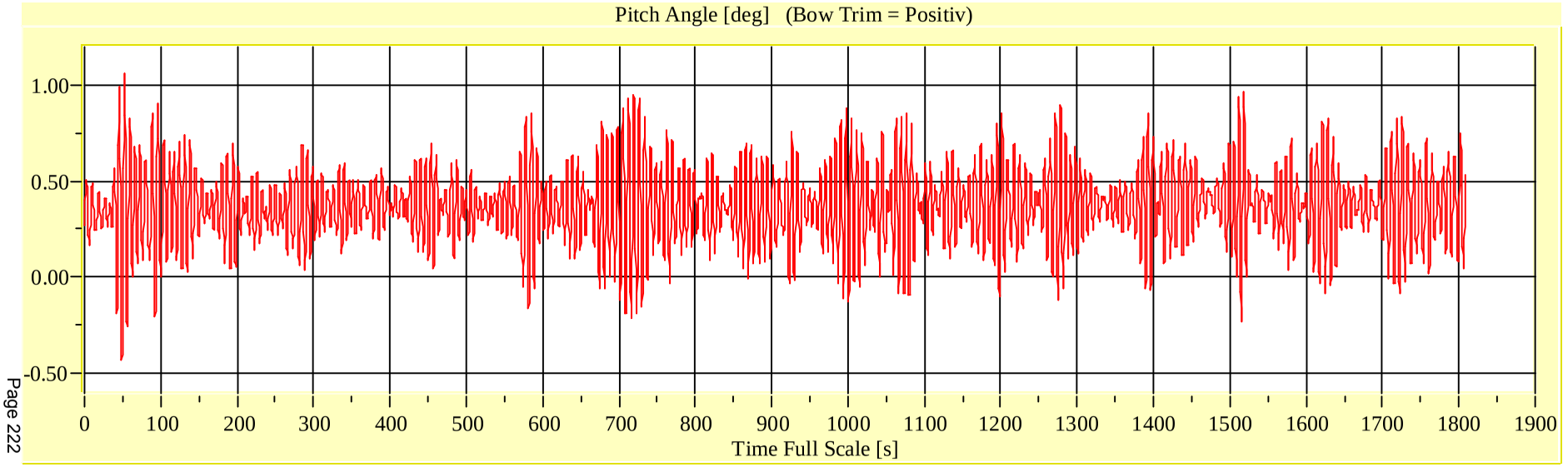


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-08	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

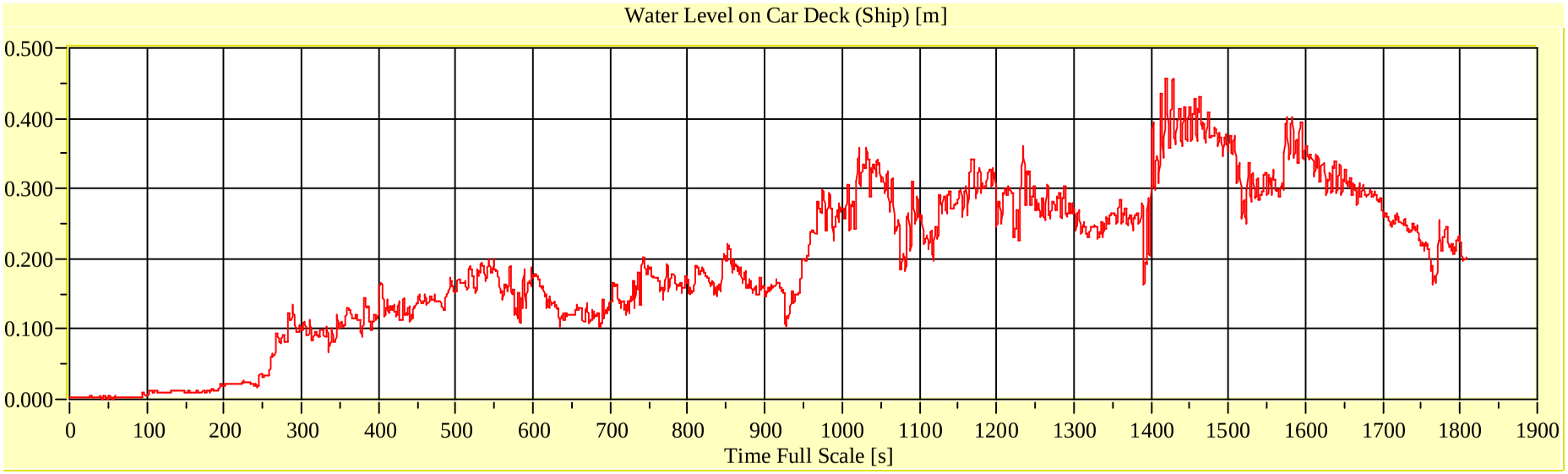


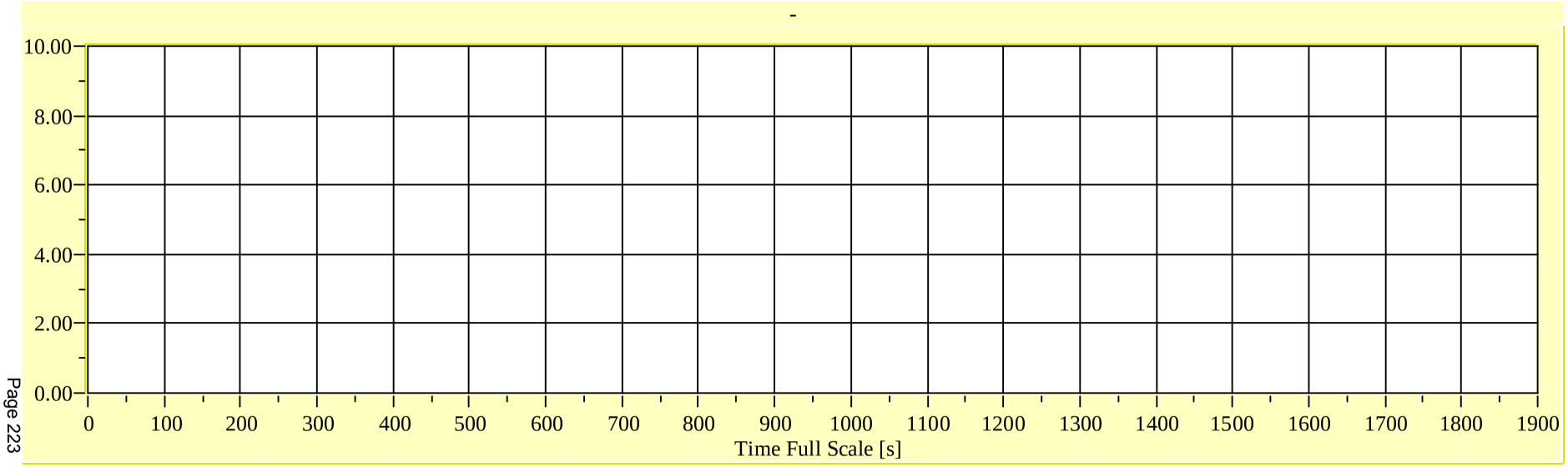


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-08	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

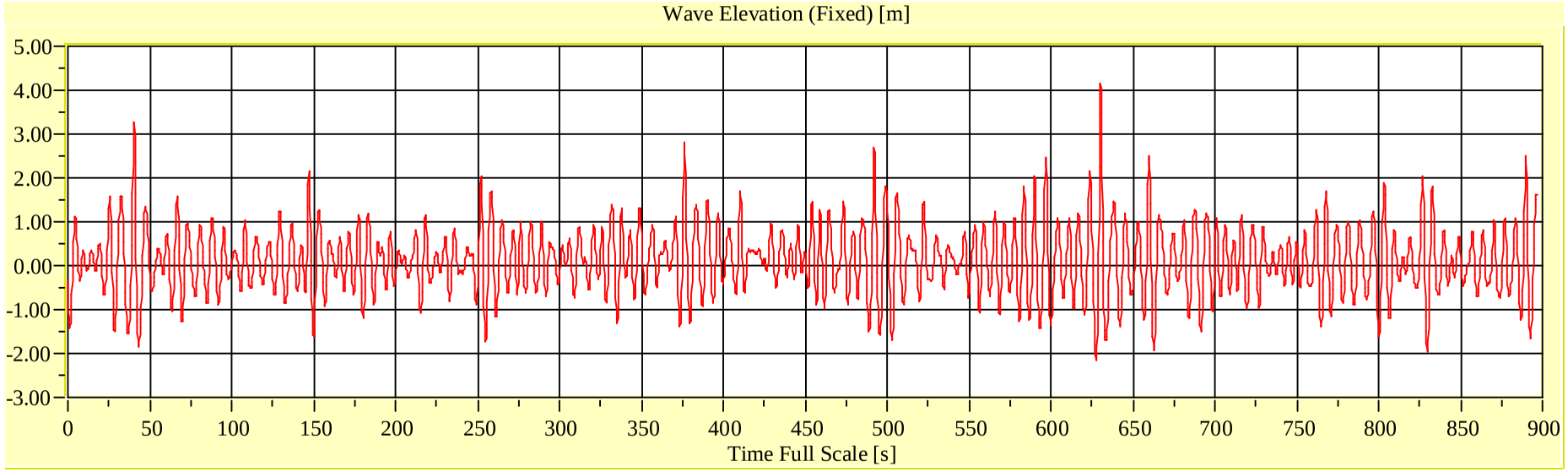


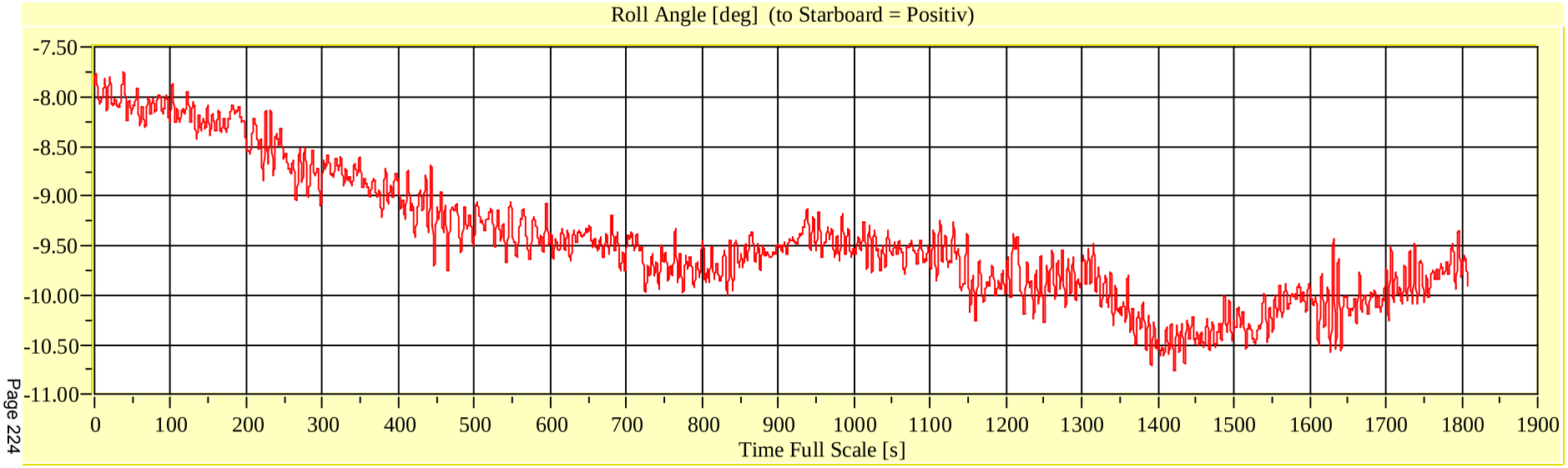


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-09	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

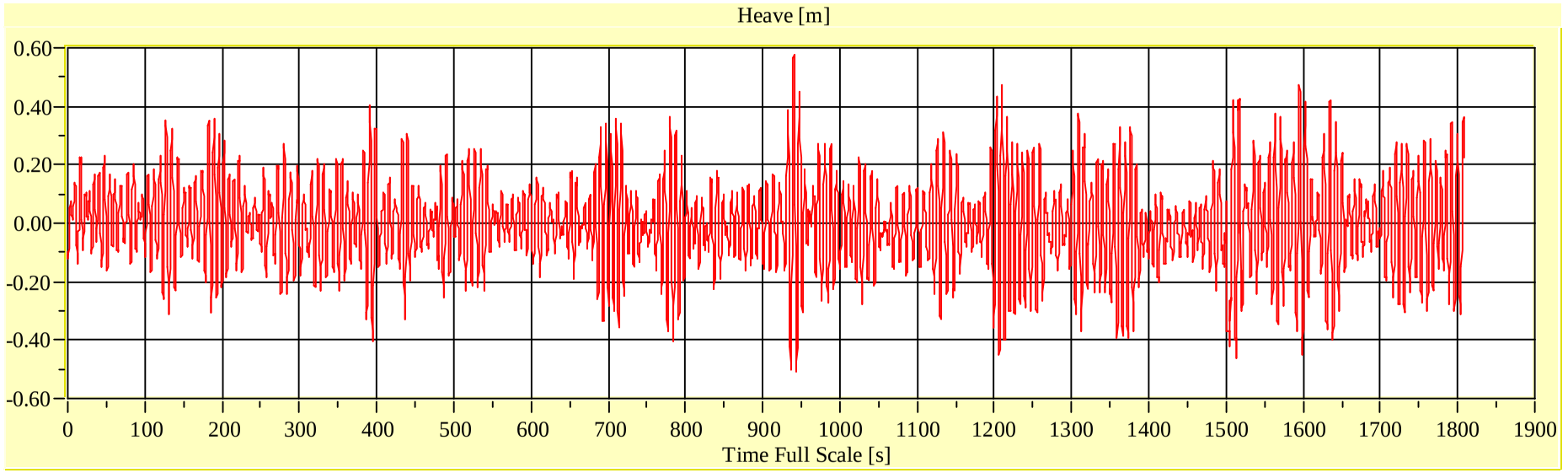


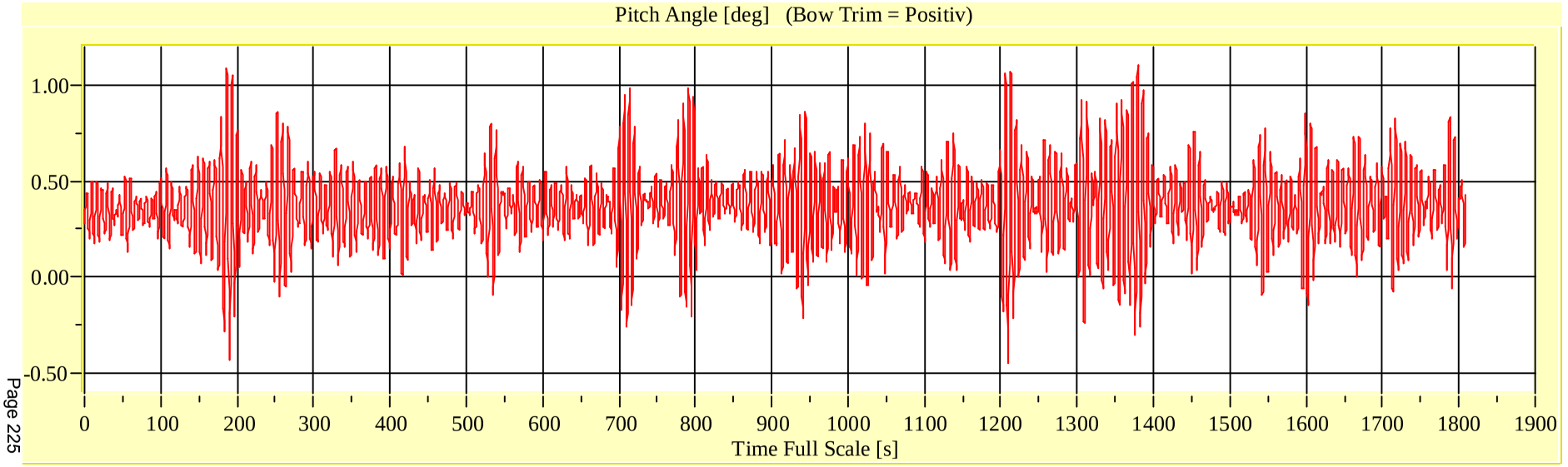


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-09	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

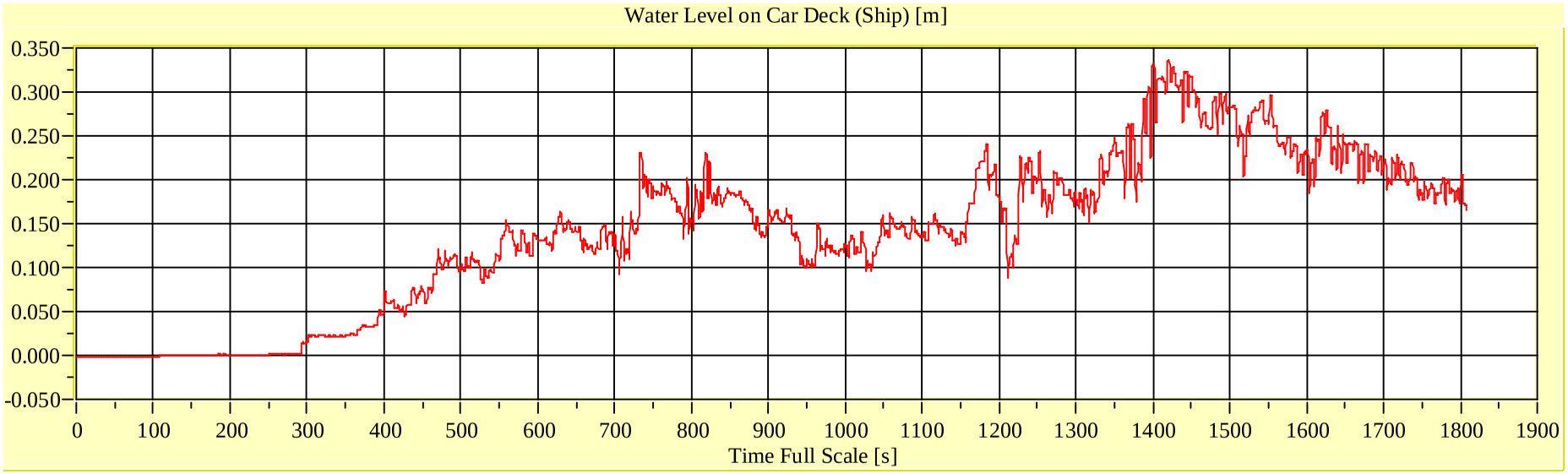


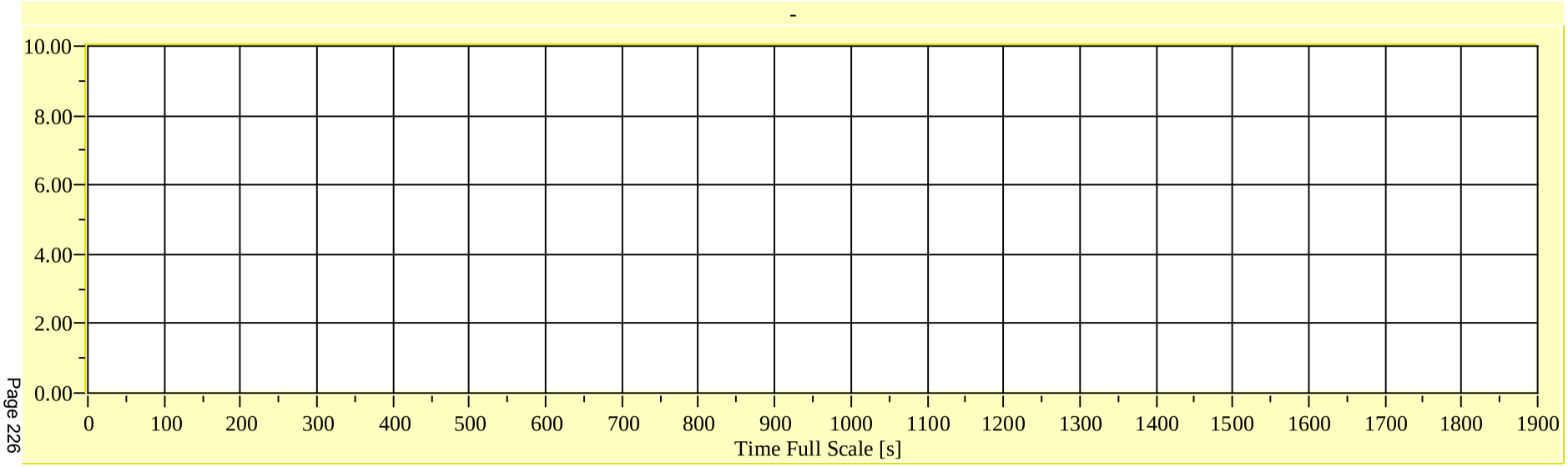


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-09	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

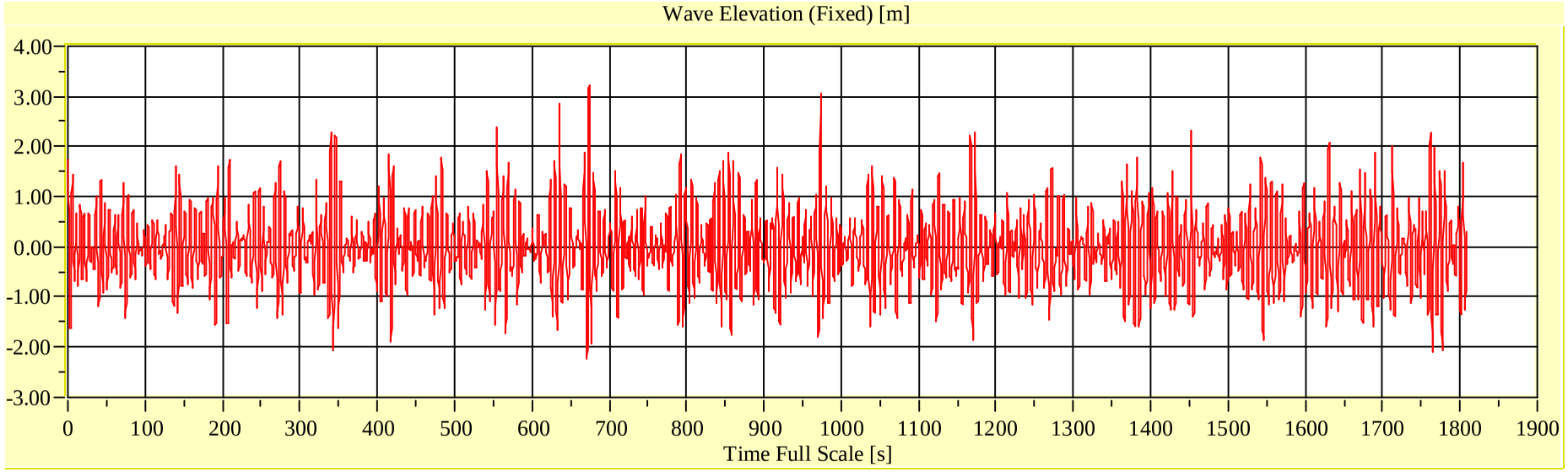


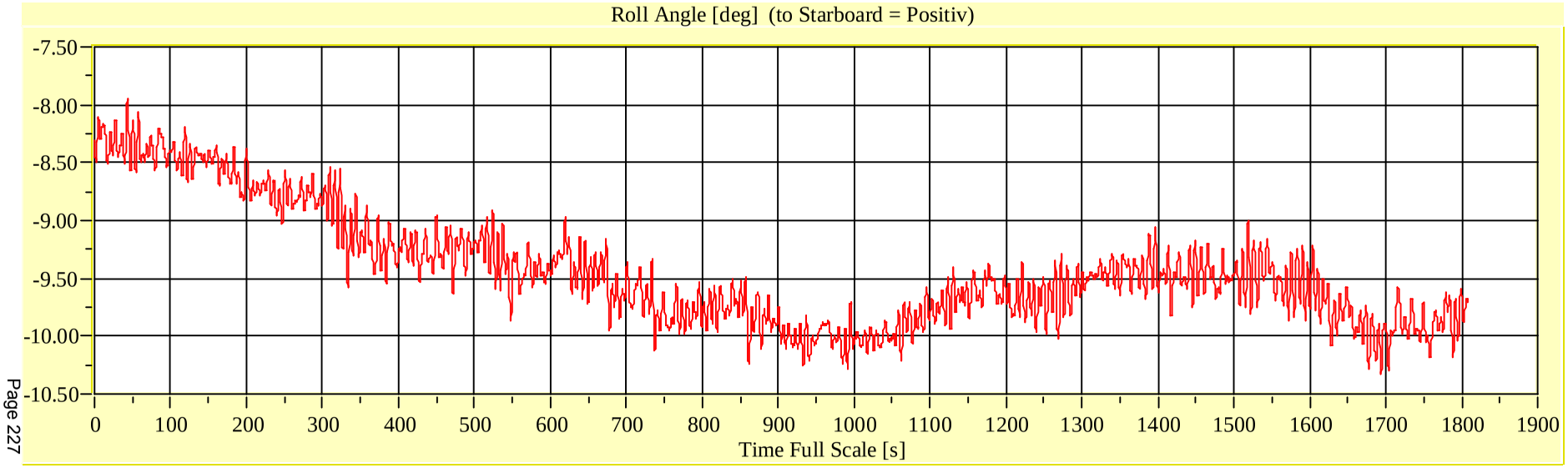


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-10	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

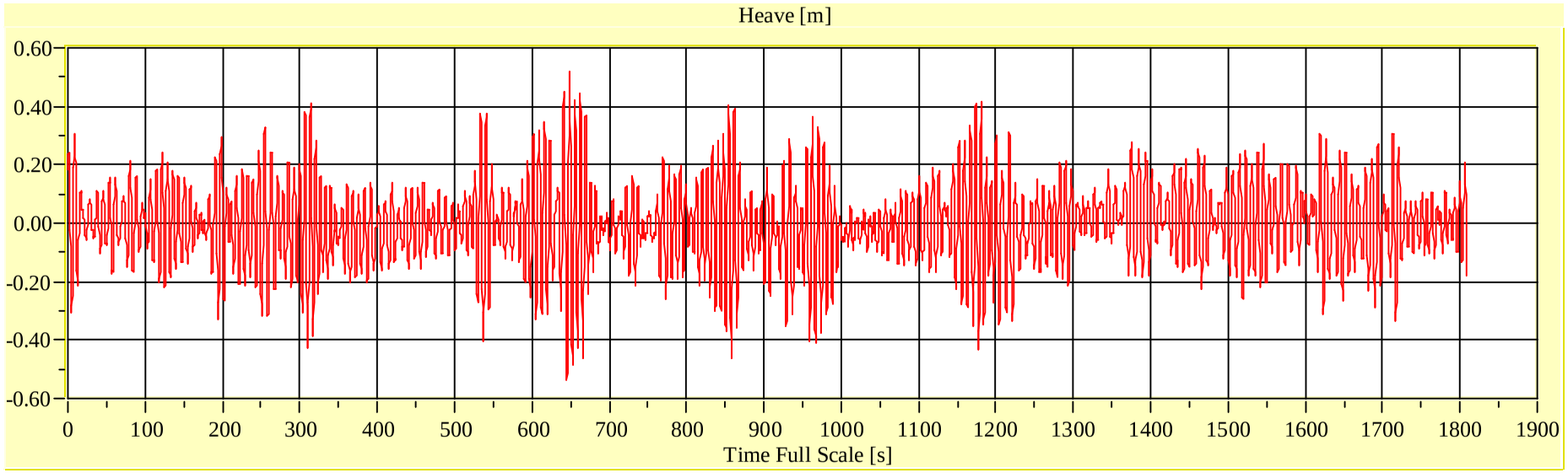


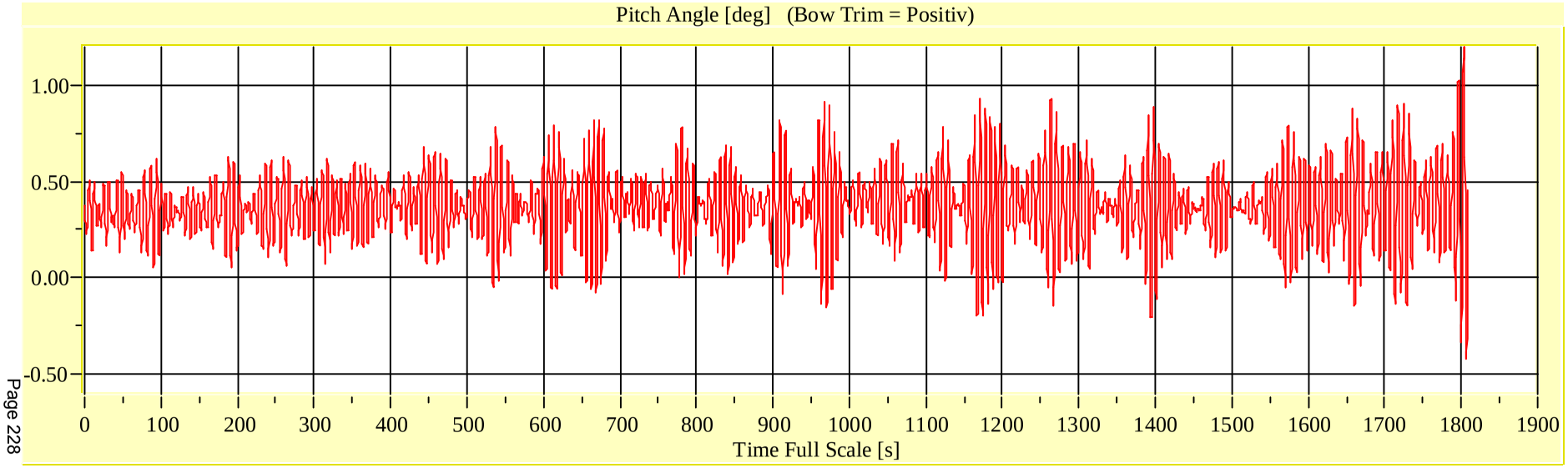


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-10	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

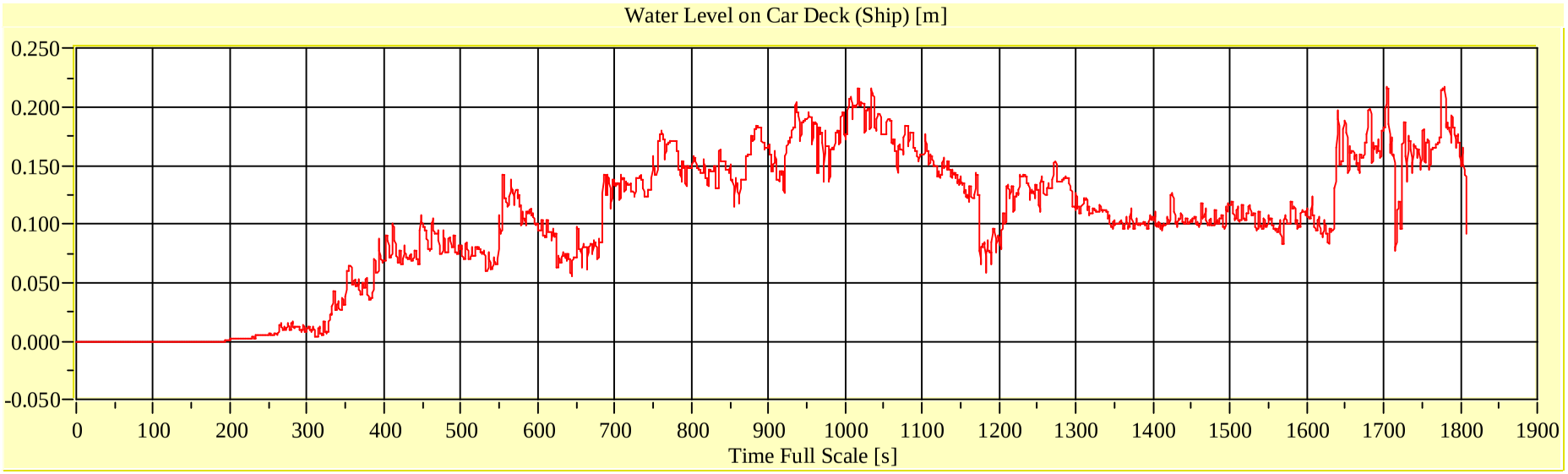


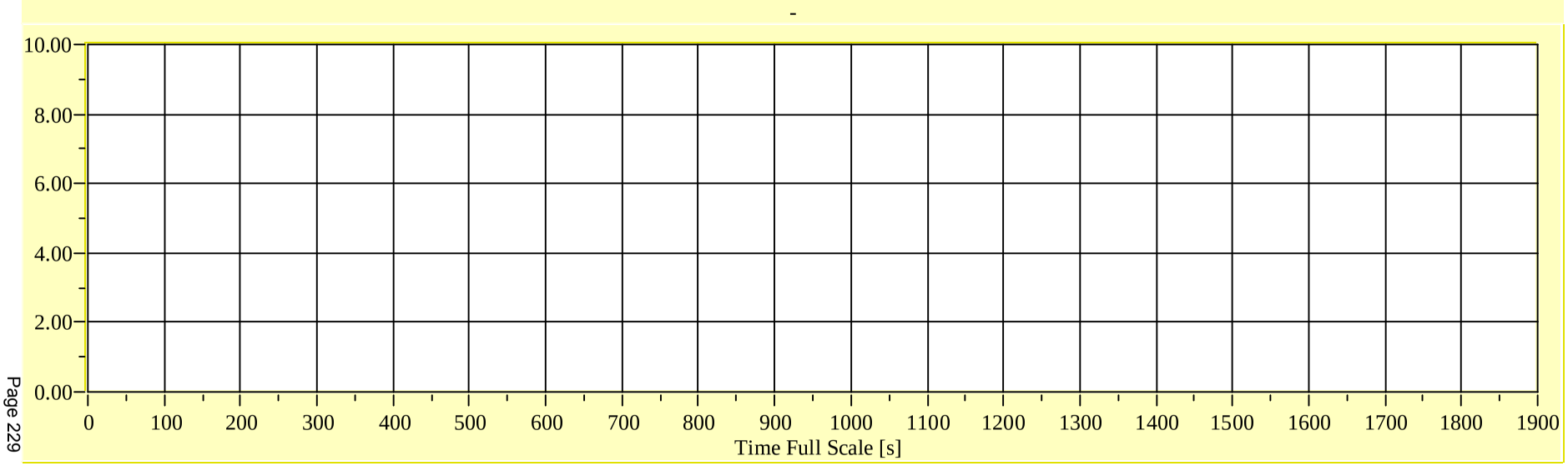


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29735-10	Target Waves: Hs = 2,75 m Tp = 6,6333 s	gamma = 3,3

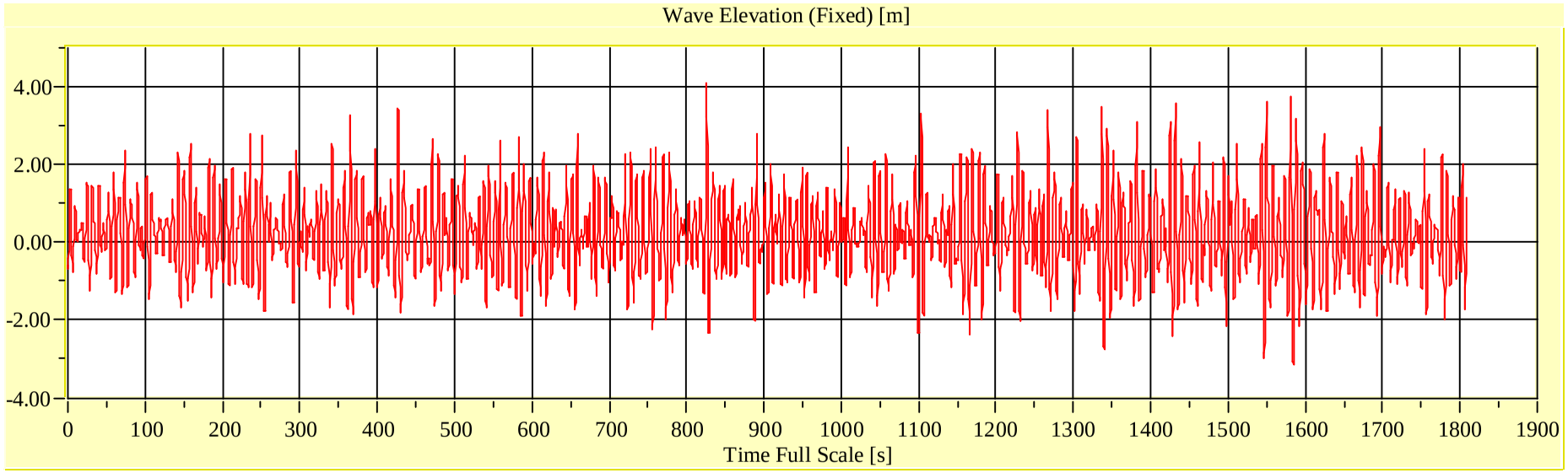


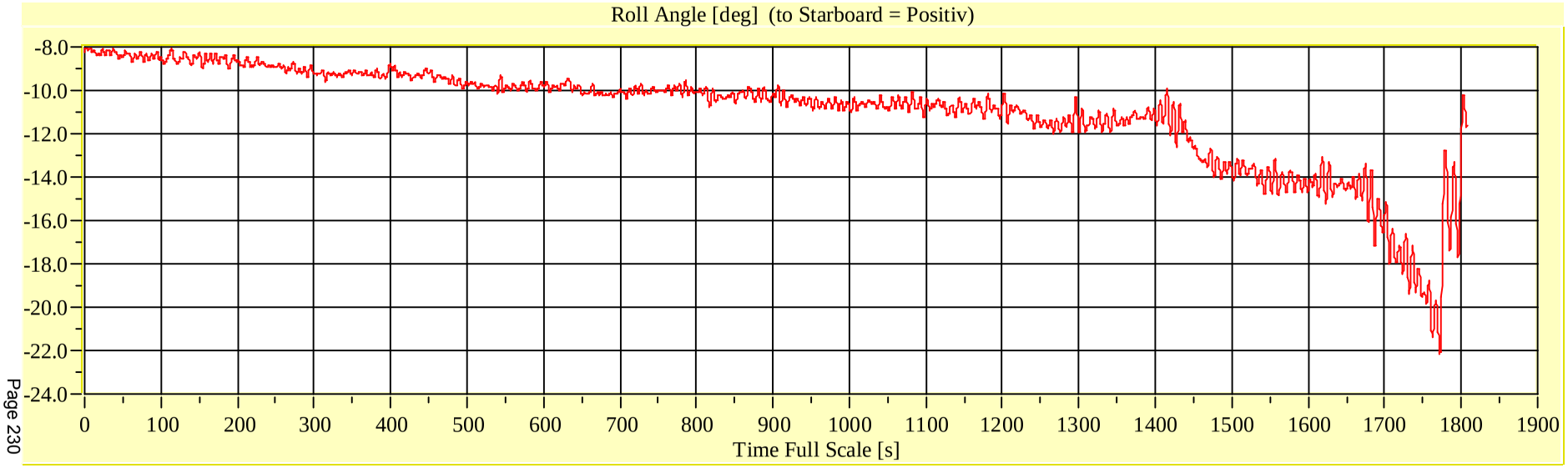


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-01	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

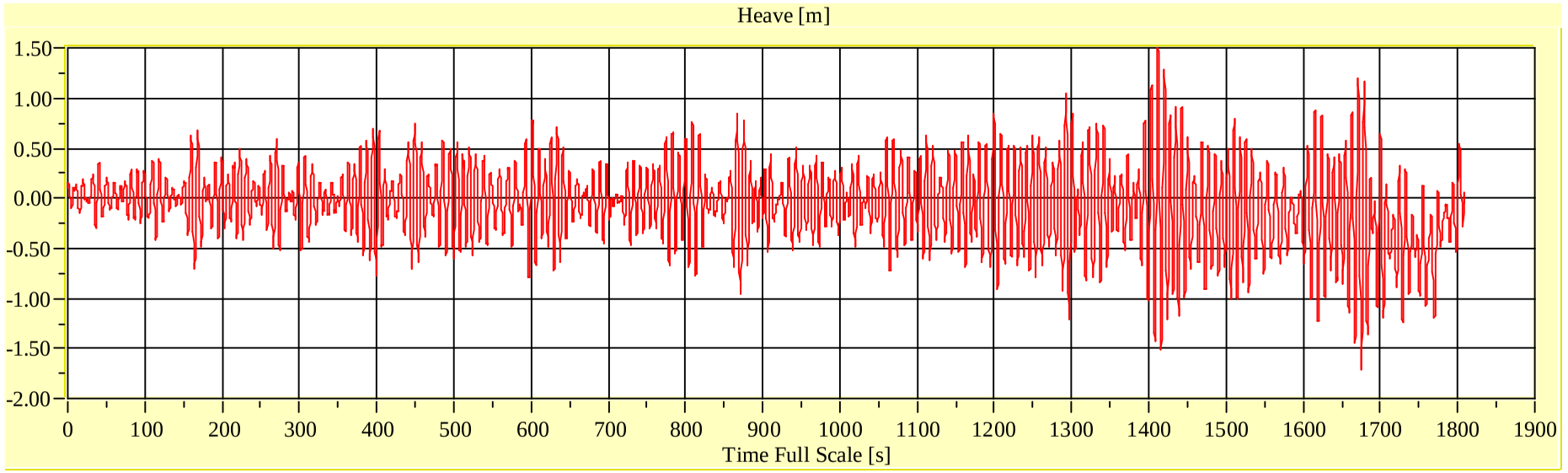


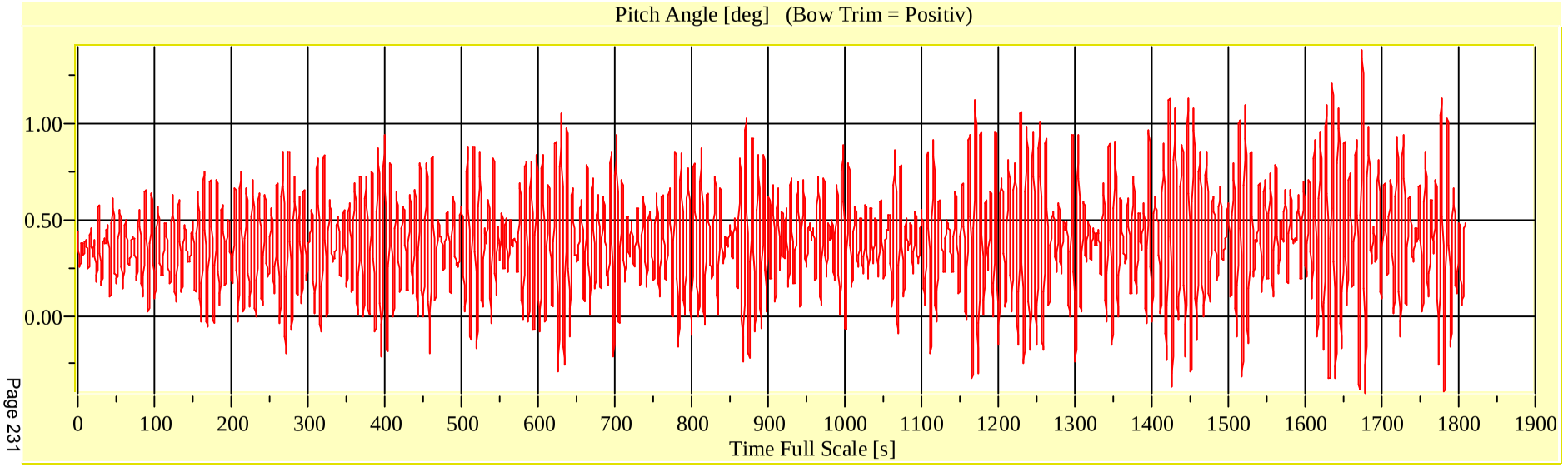


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

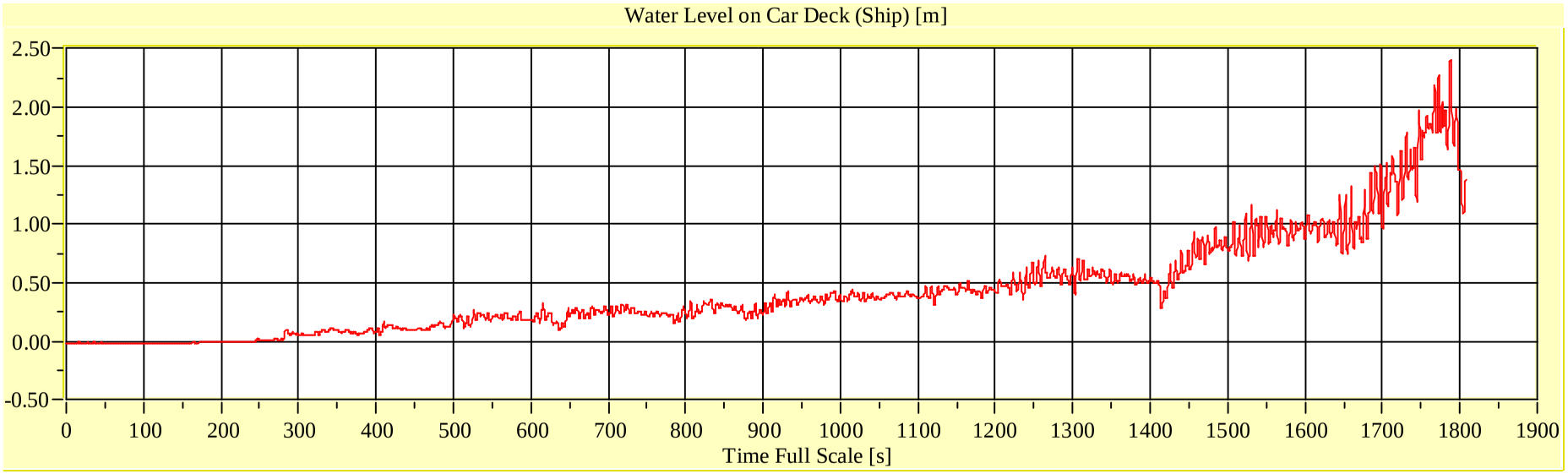
Vienna Model Basin	Model No. 2461	Test No. 29736-01	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

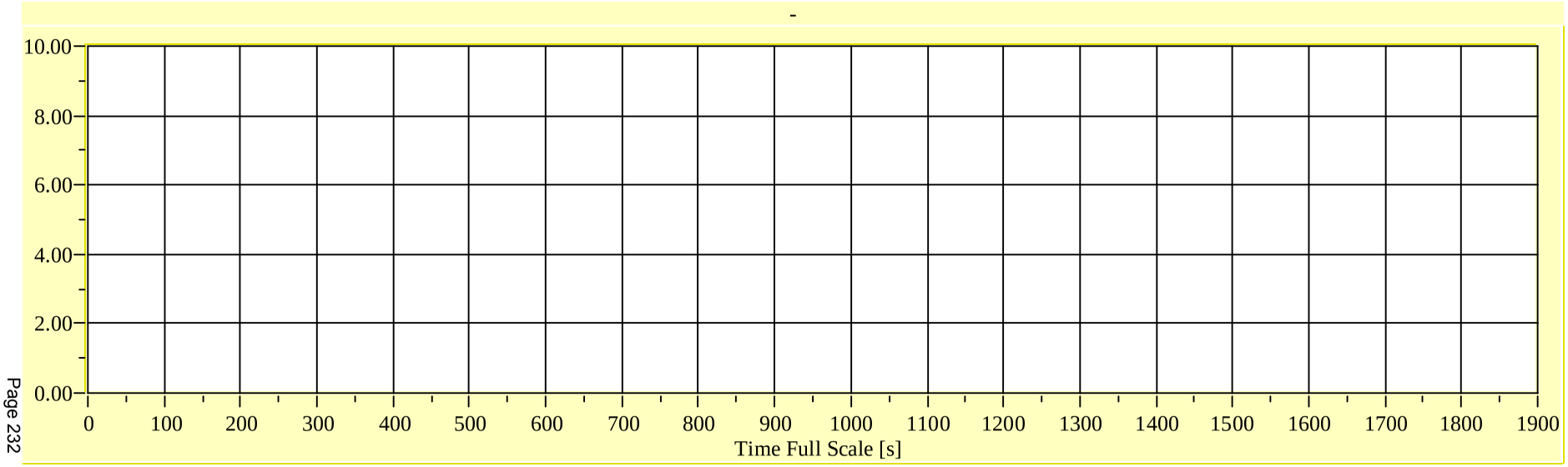




Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas				
Vienna Model Basin	Model No. 2461	Test No. 29736-01	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

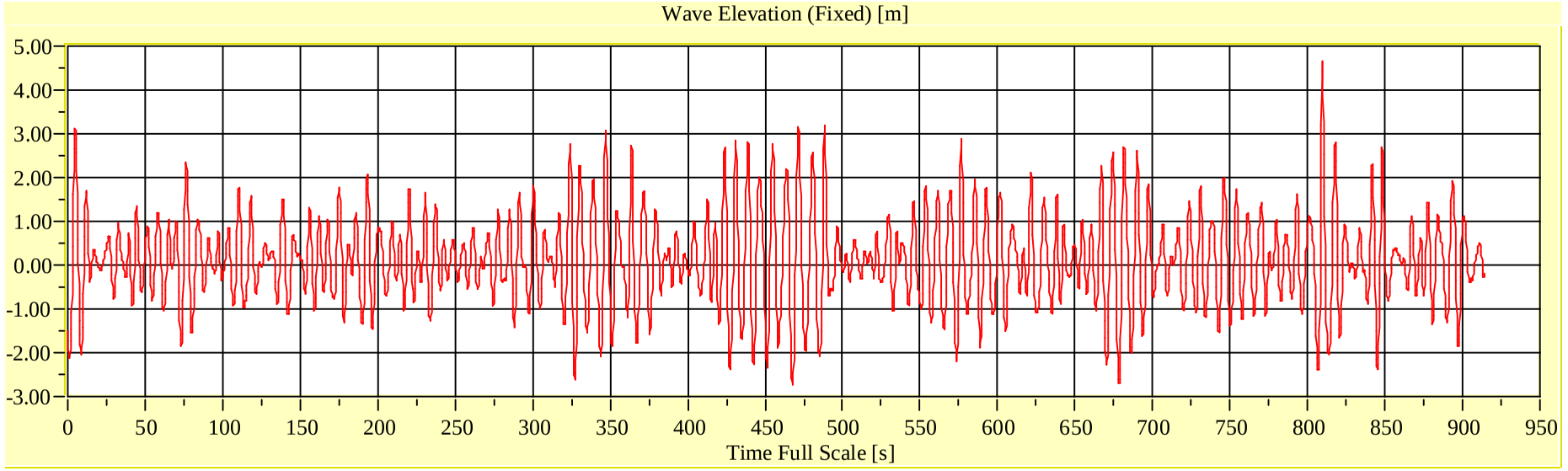


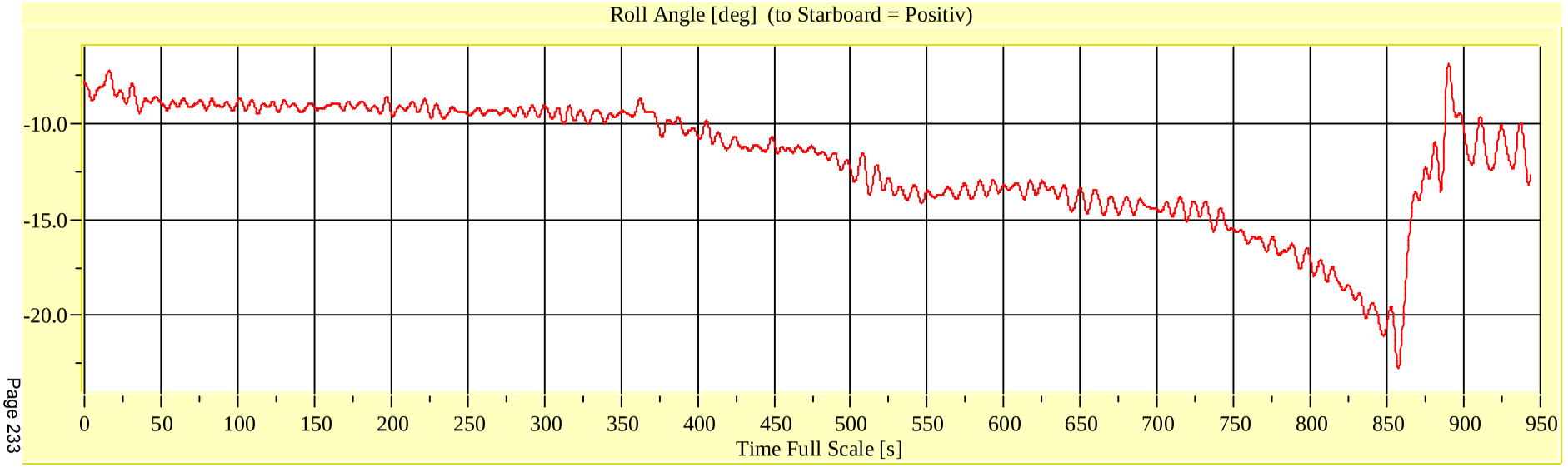


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-02	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3



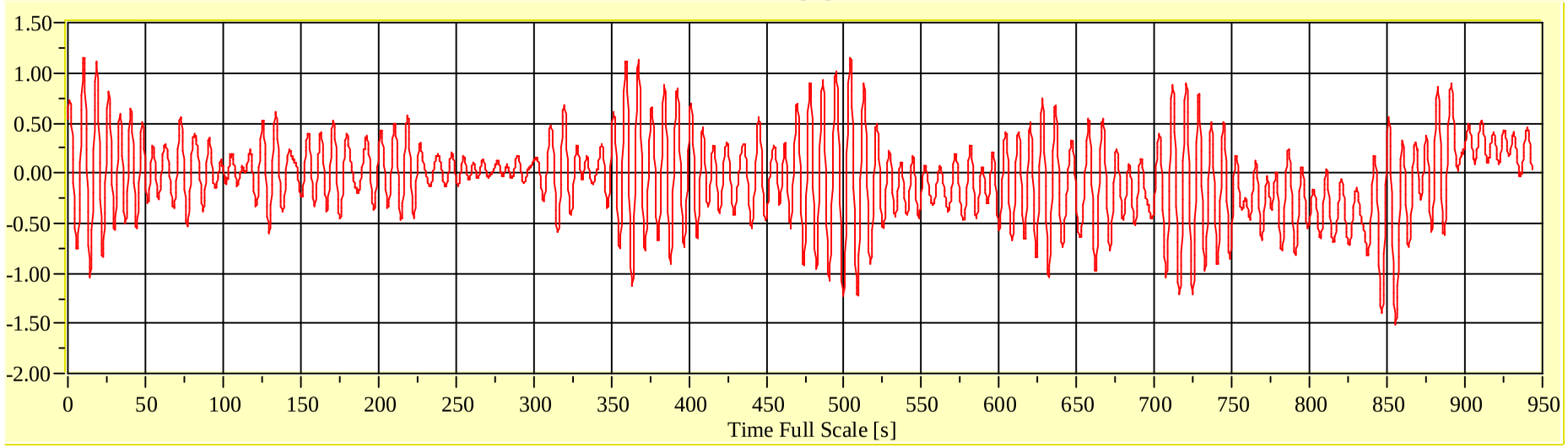


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

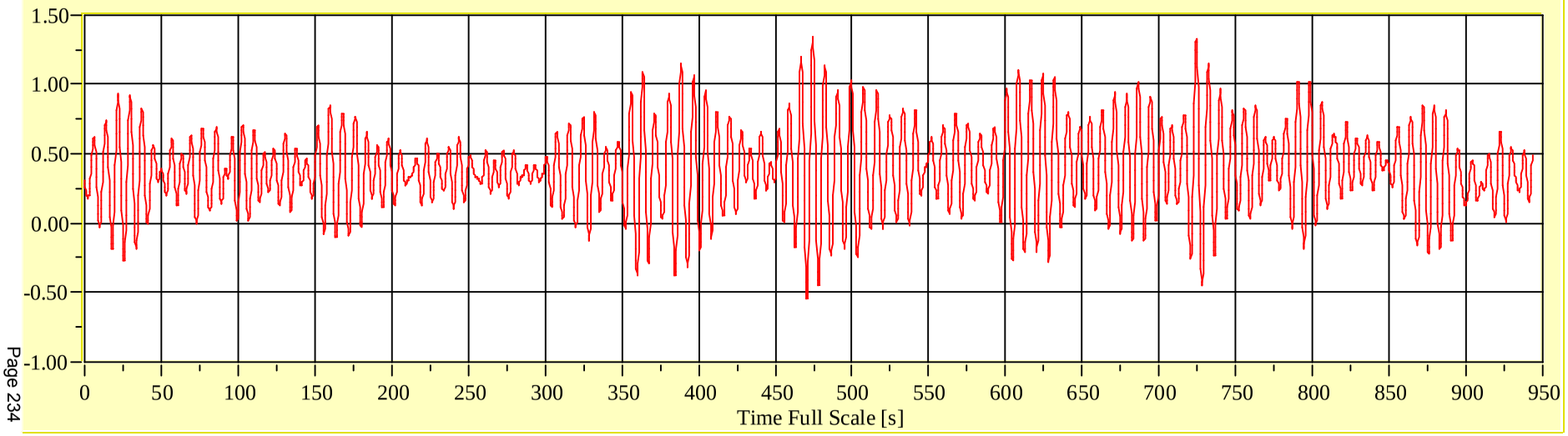
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-02	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

Heave [m]



Pitch Angle [deg] (Bow Trim = Positiv)

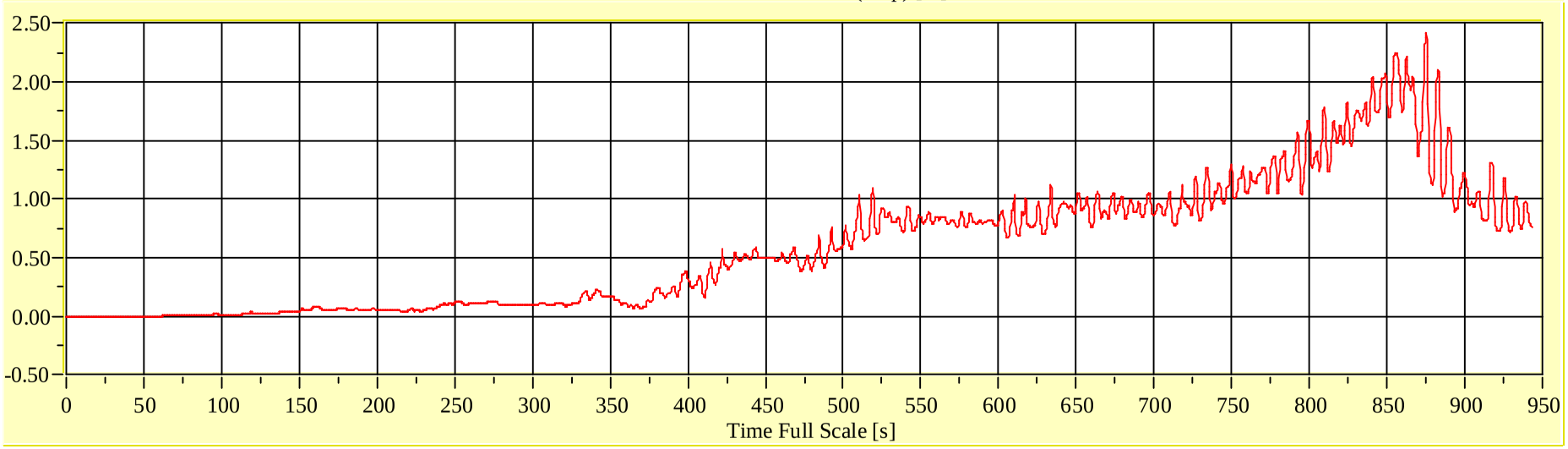


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-02	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

Water Level on Car Deck (Ship) [m]



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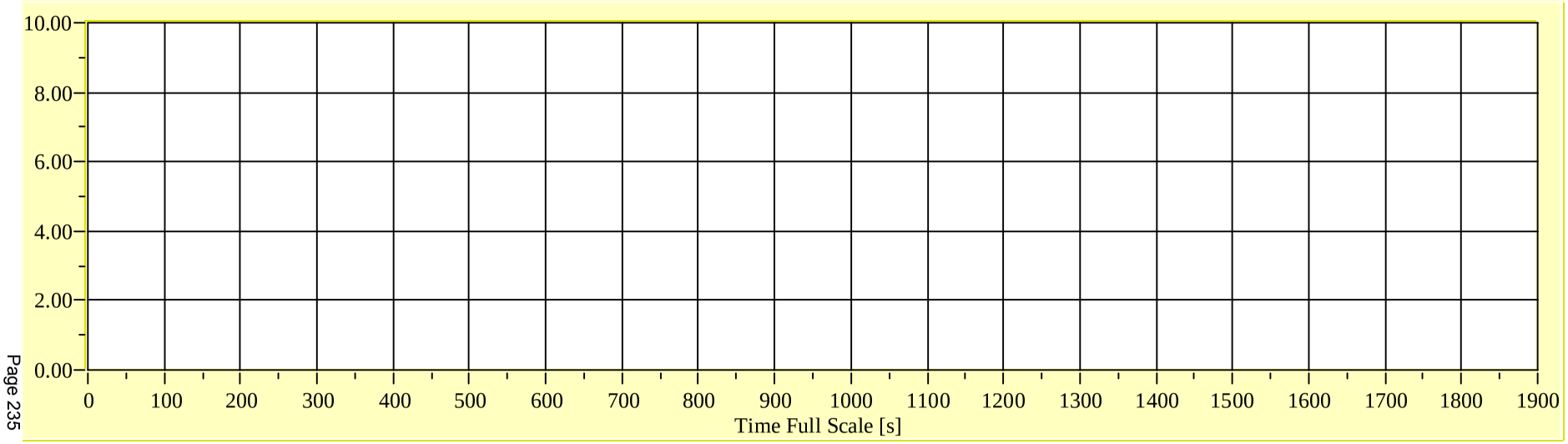
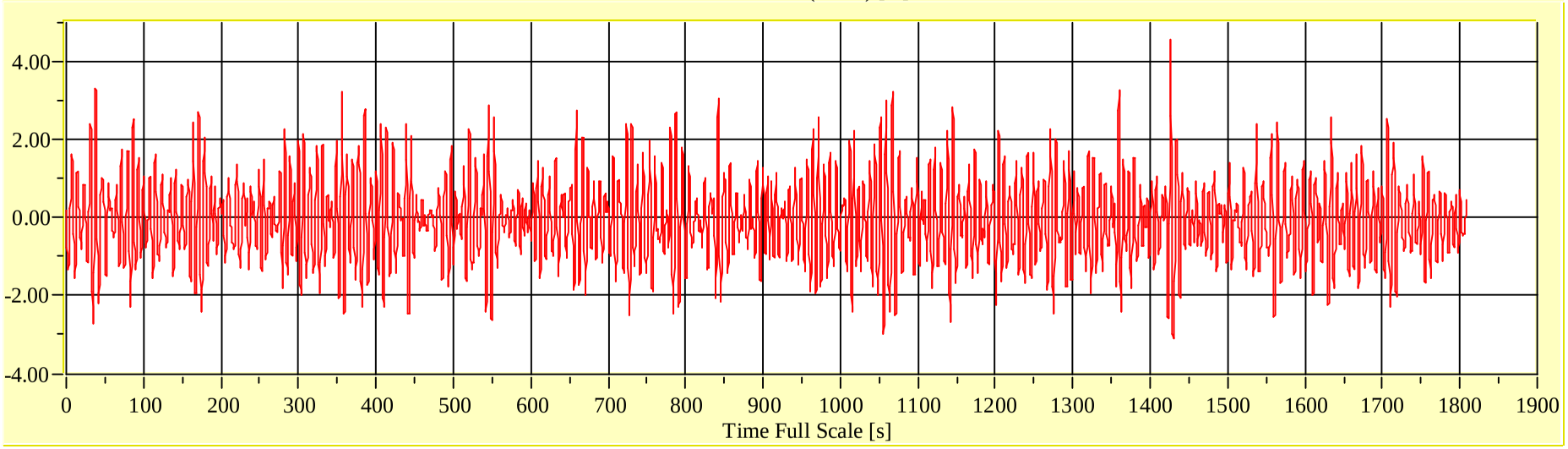


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

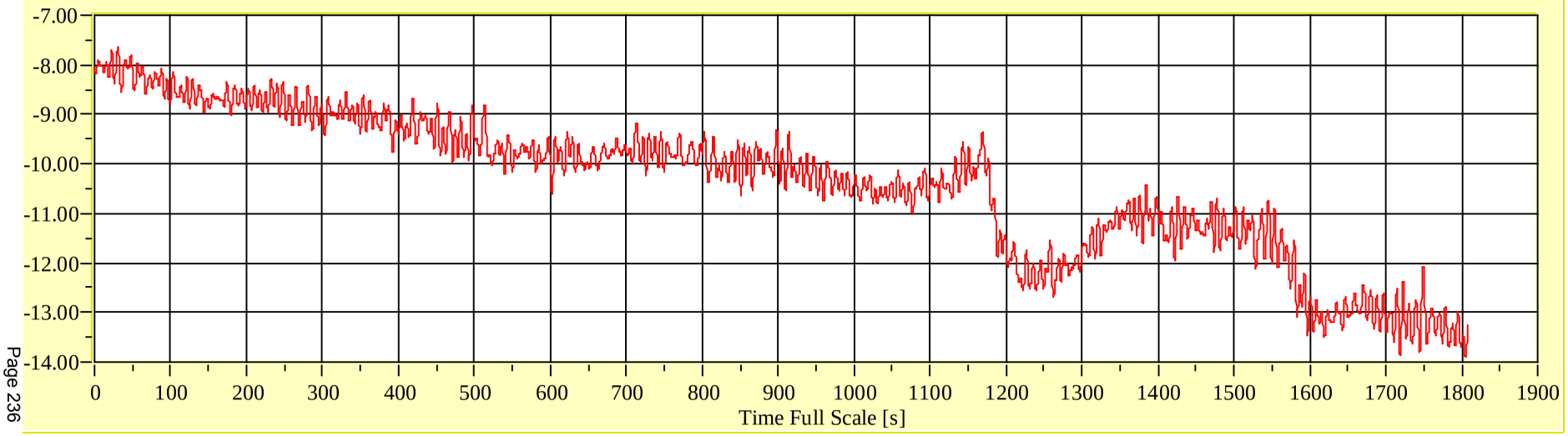
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-03	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

Wave Elevation (Fixed) [m]



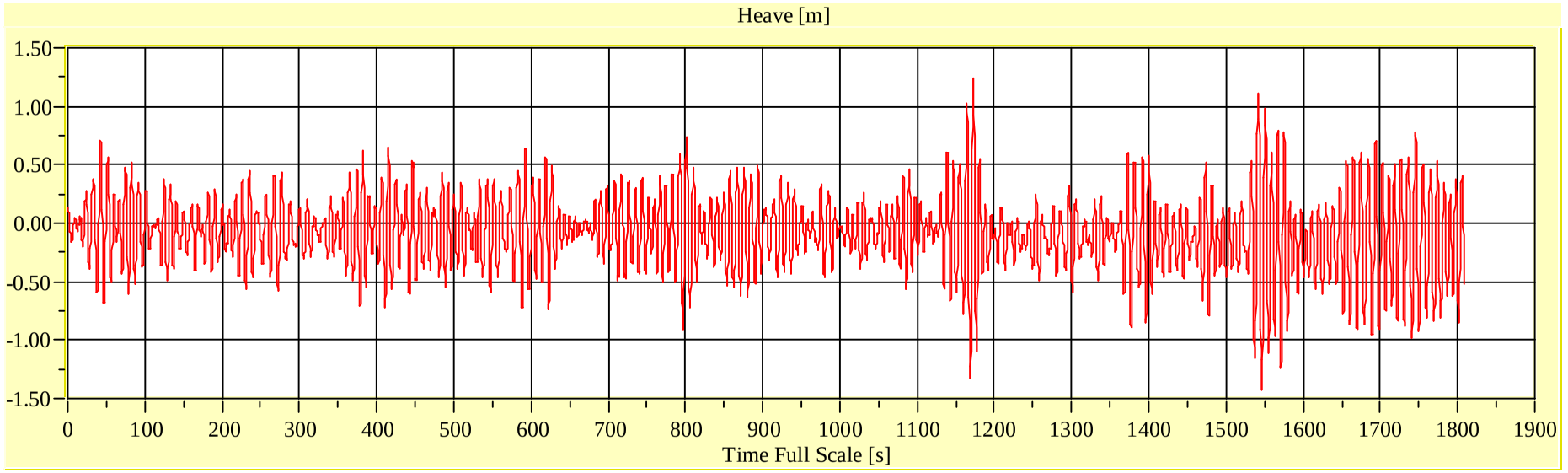
Roll Angle [deg] (to Starboard = Positiv)

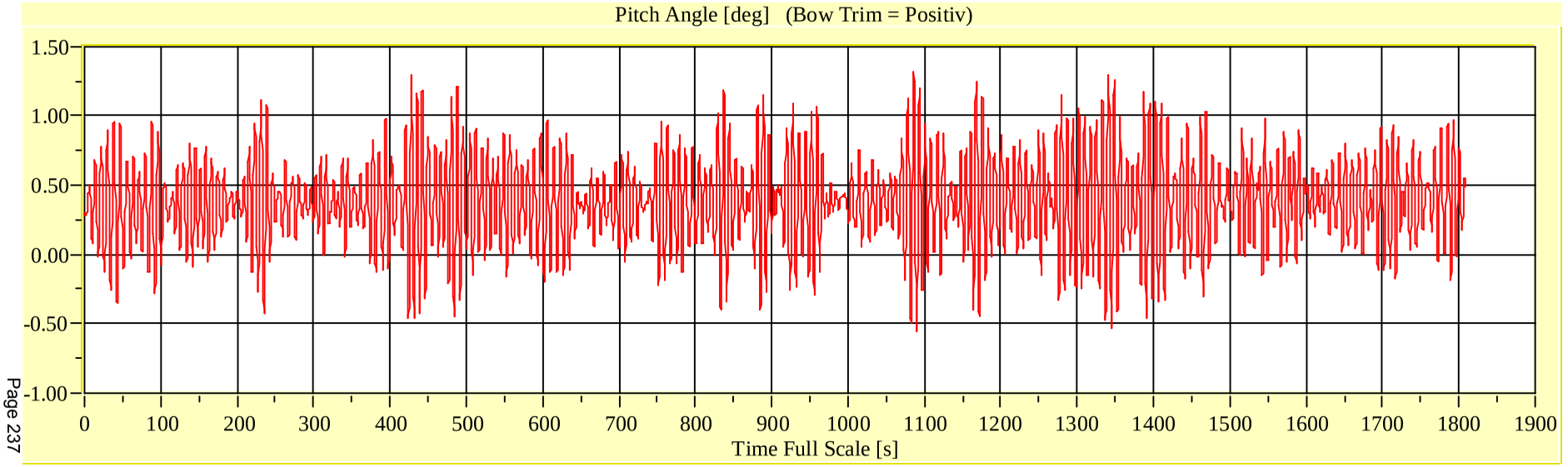


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-03	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

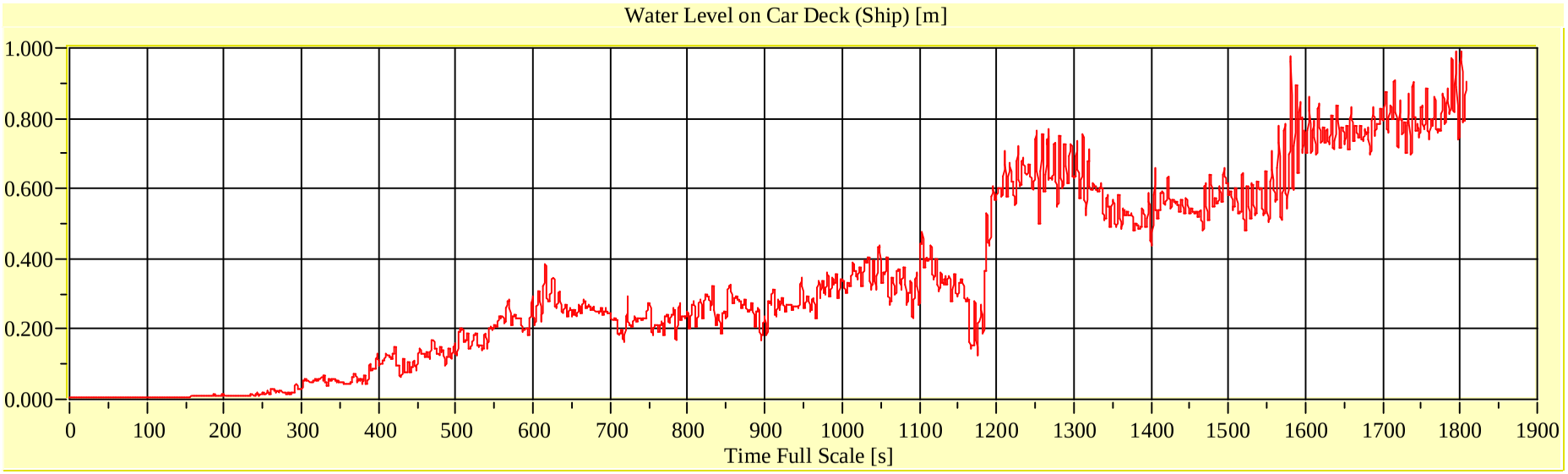




Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-03	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3



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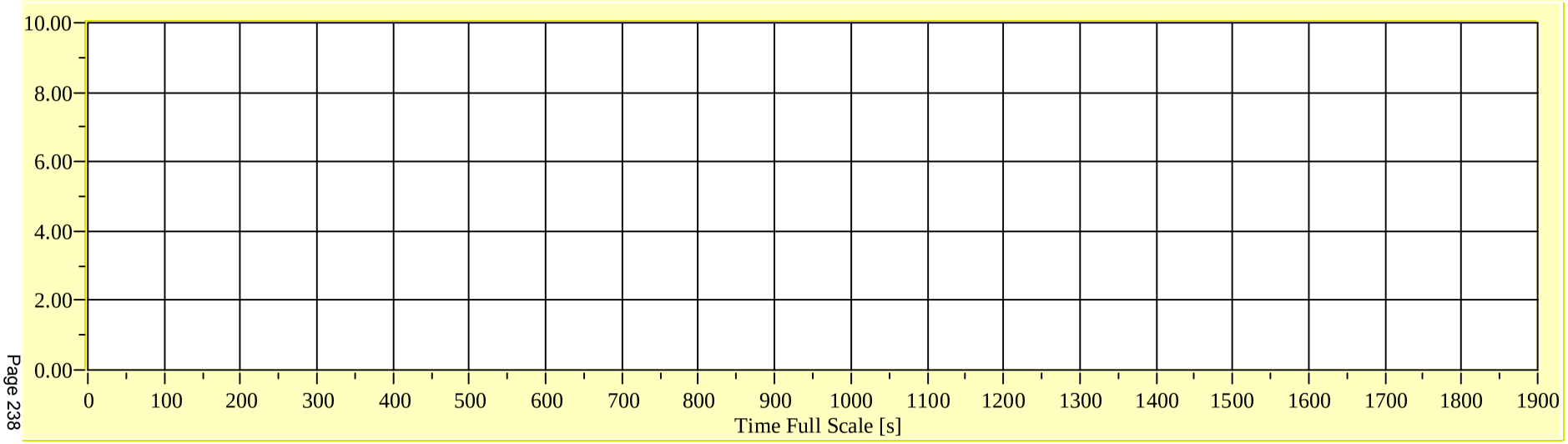
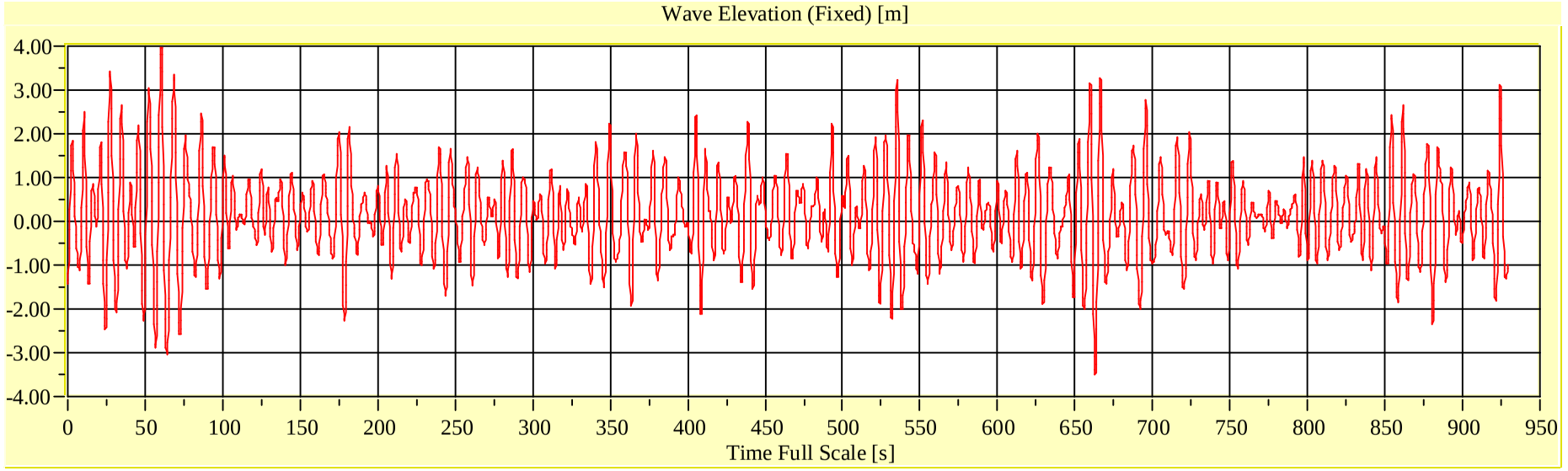
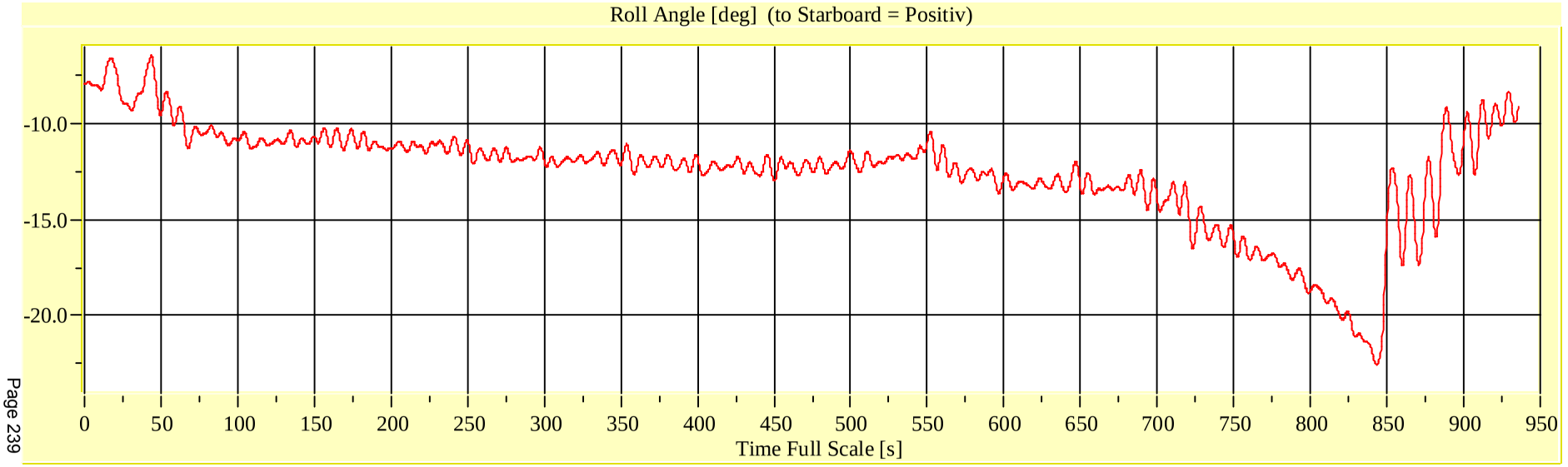


Date: 29.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-04	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

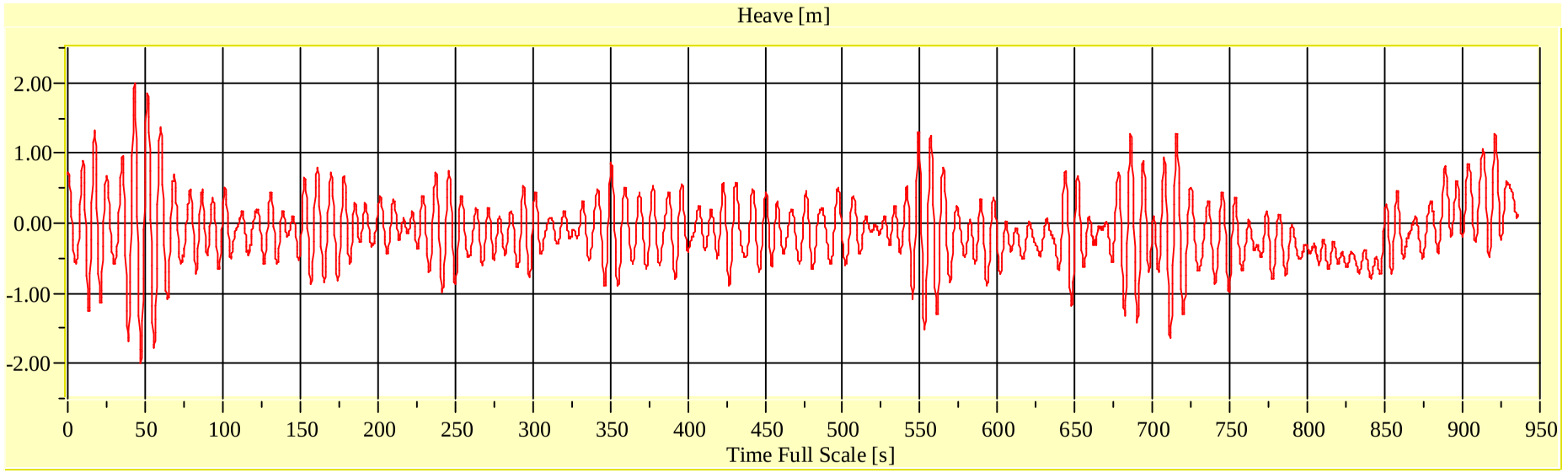


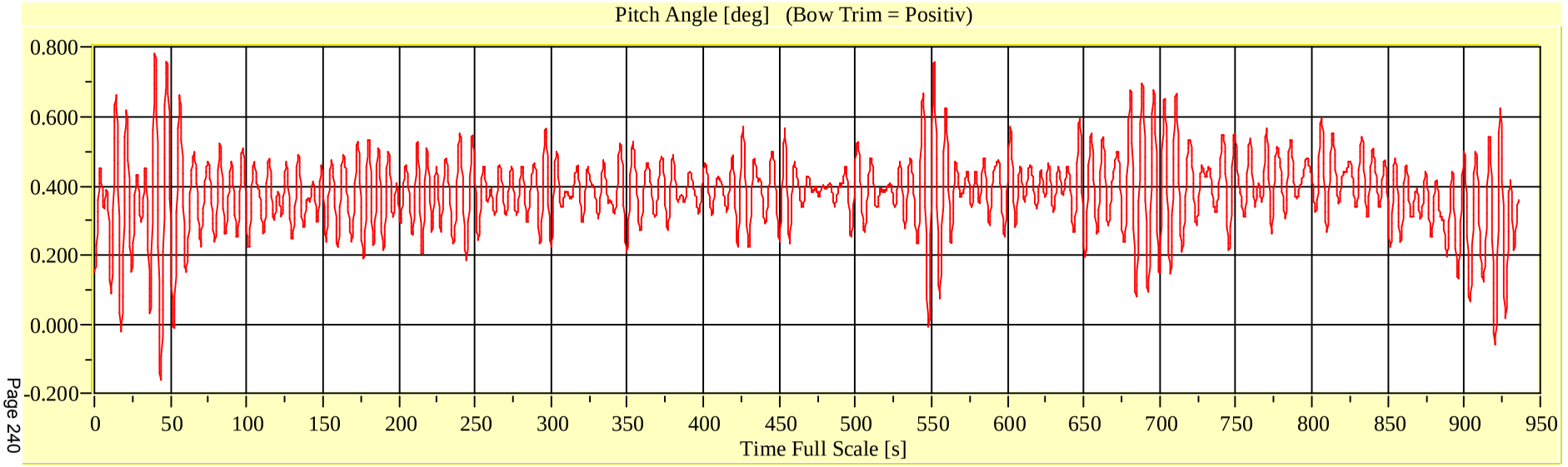


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-04	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3



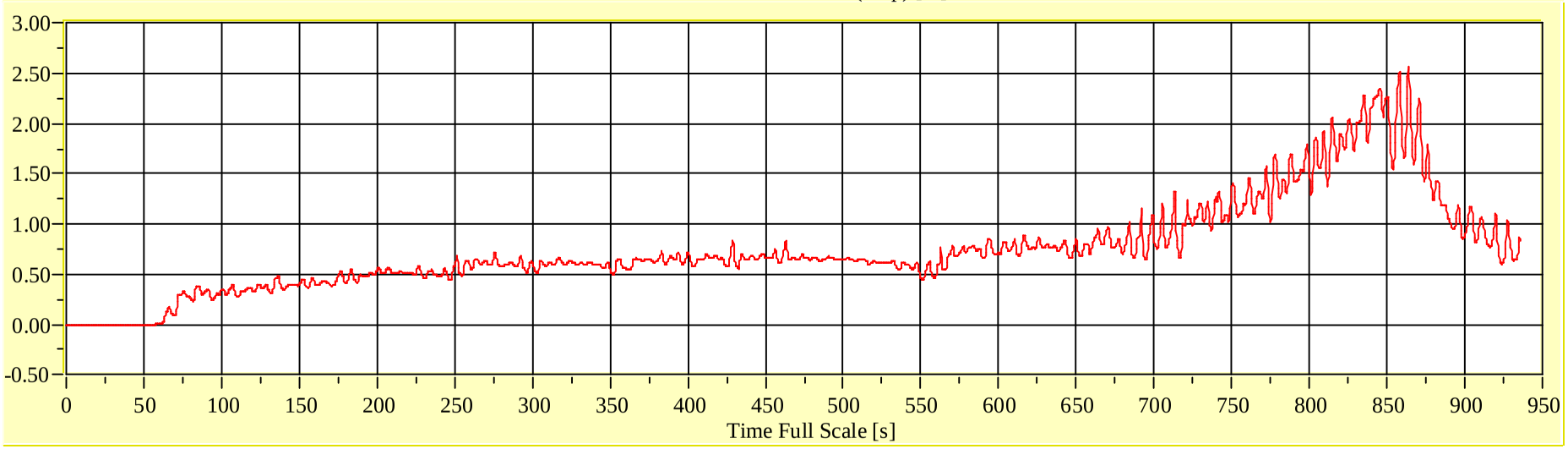


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-04	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

Water Level on Car Deck (Ship) [m]



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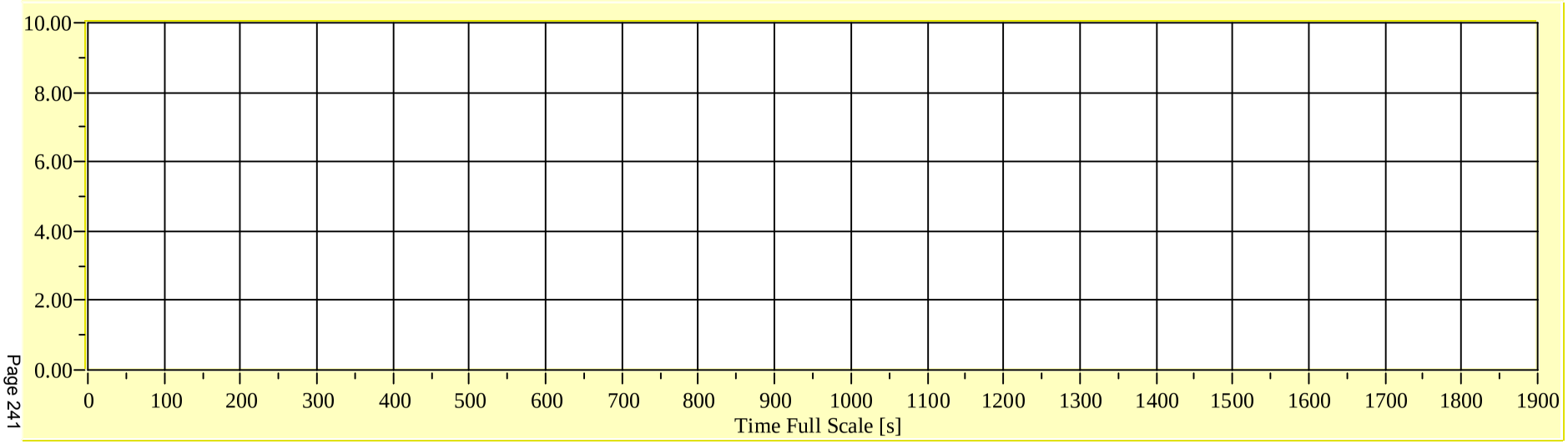
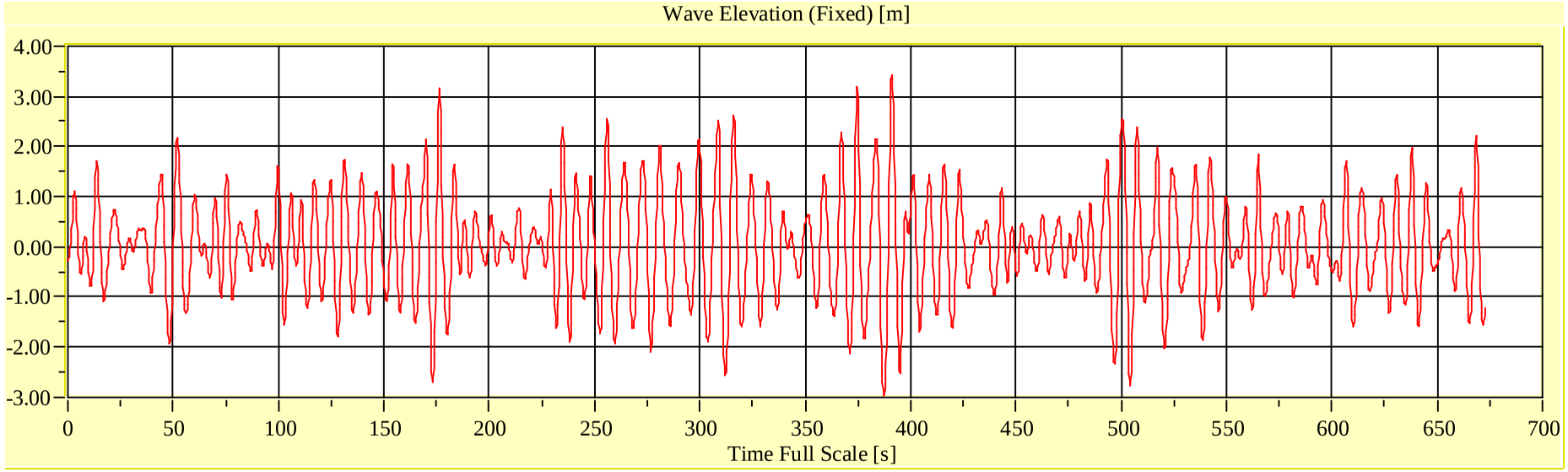
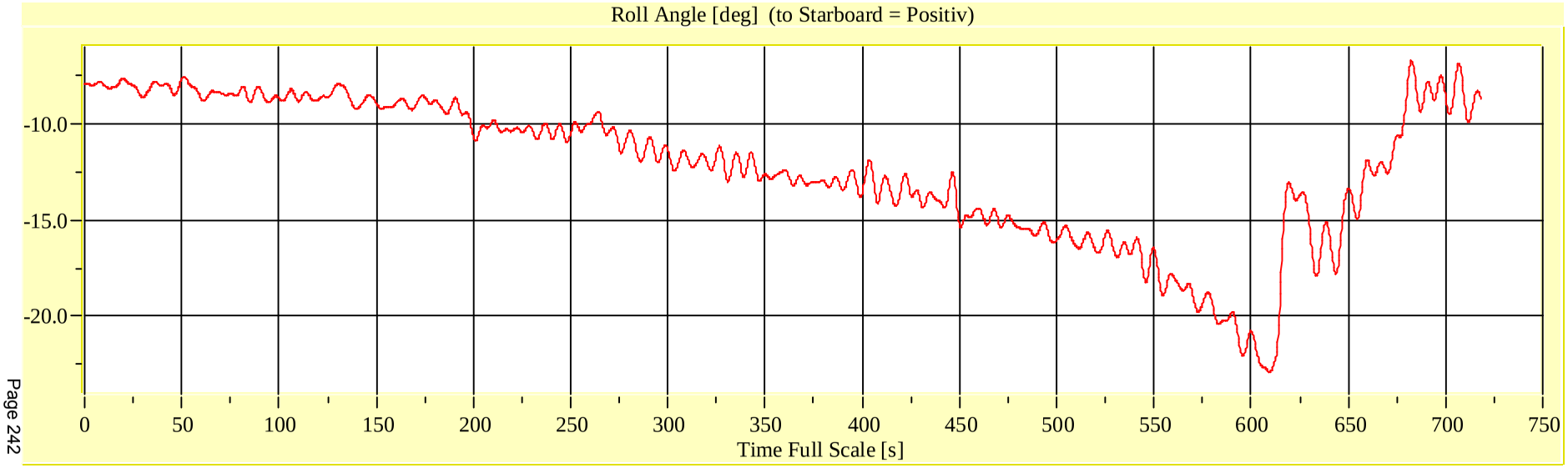


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-05	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3



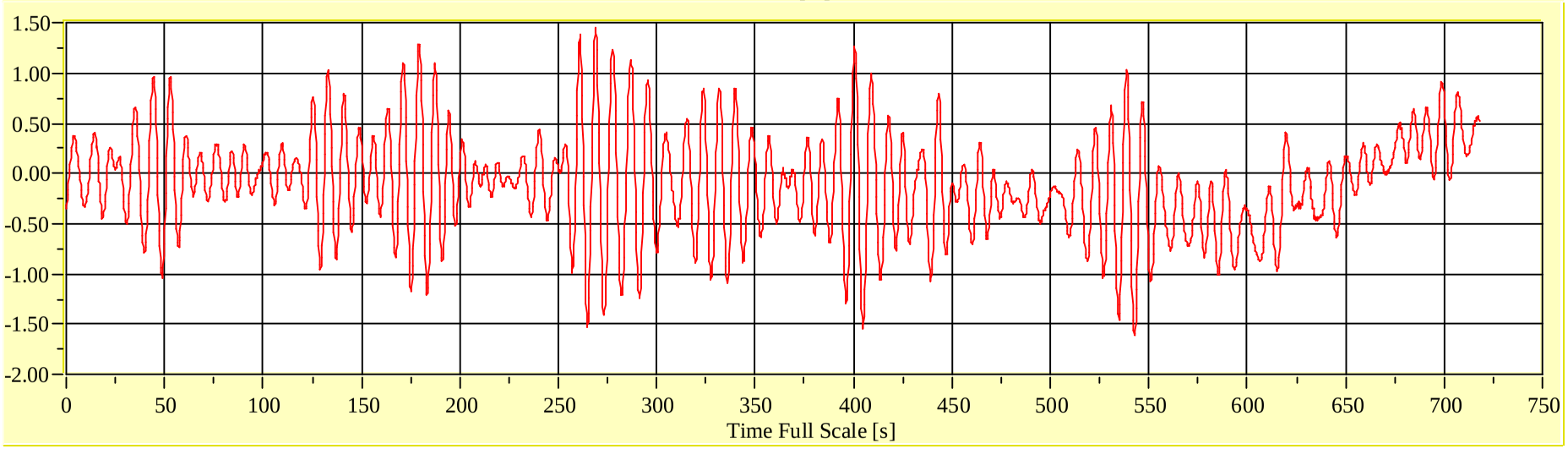


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

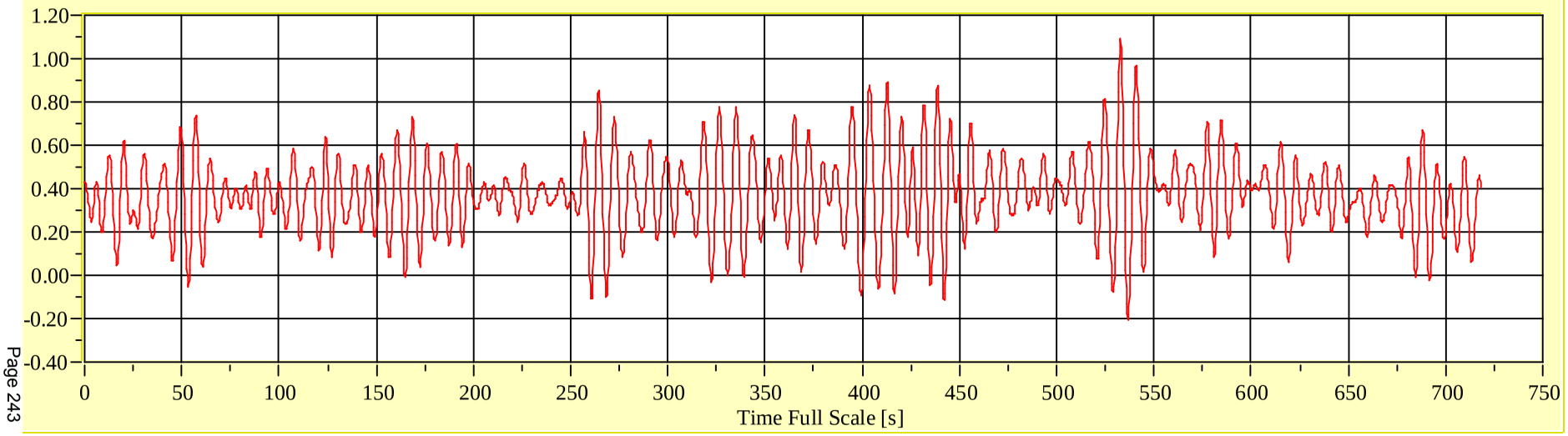
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-05	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

Heave [m]



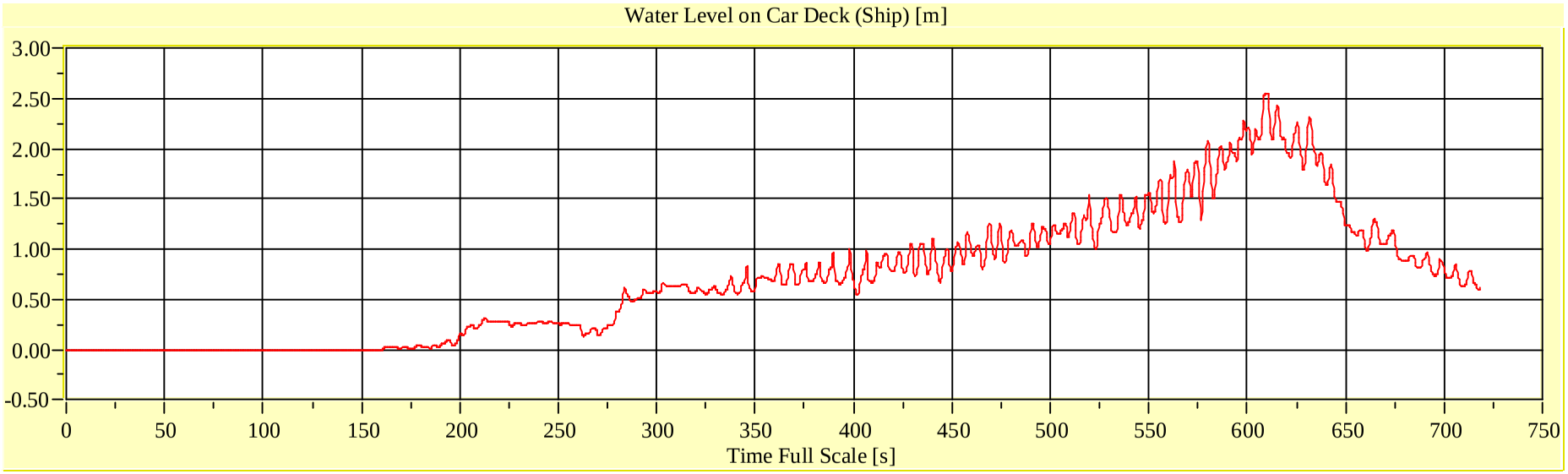
Pitch Angle [deg] (Bow Trim = Positiv)

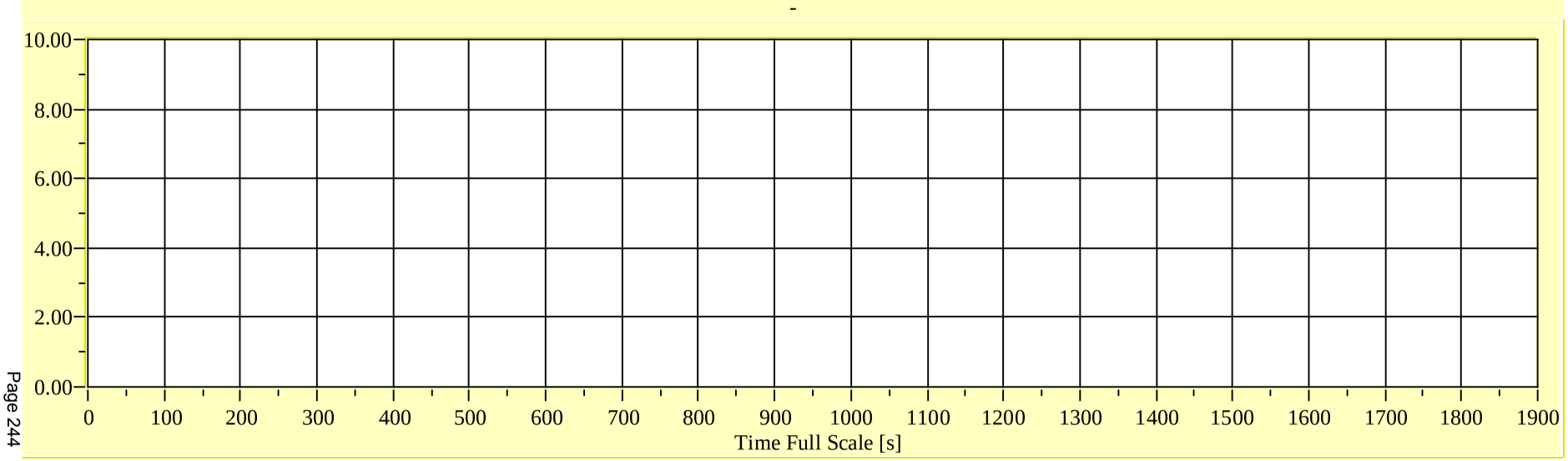


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29736-05	Target Waves: Hs = 4,0 m Tp = 8,0 s	gamma = 3,3

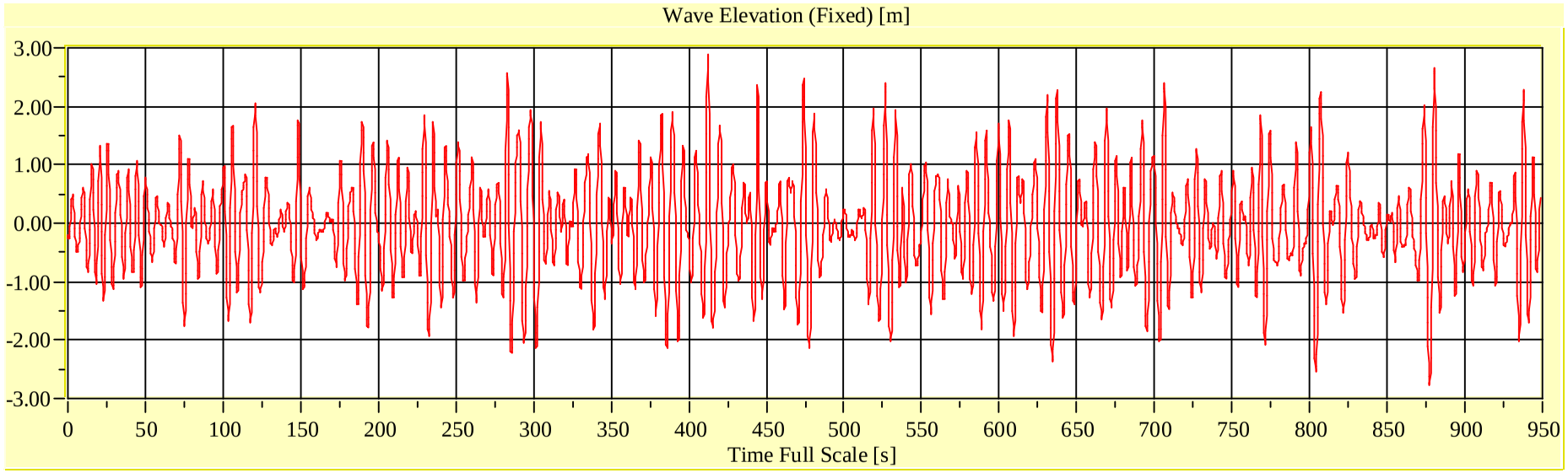


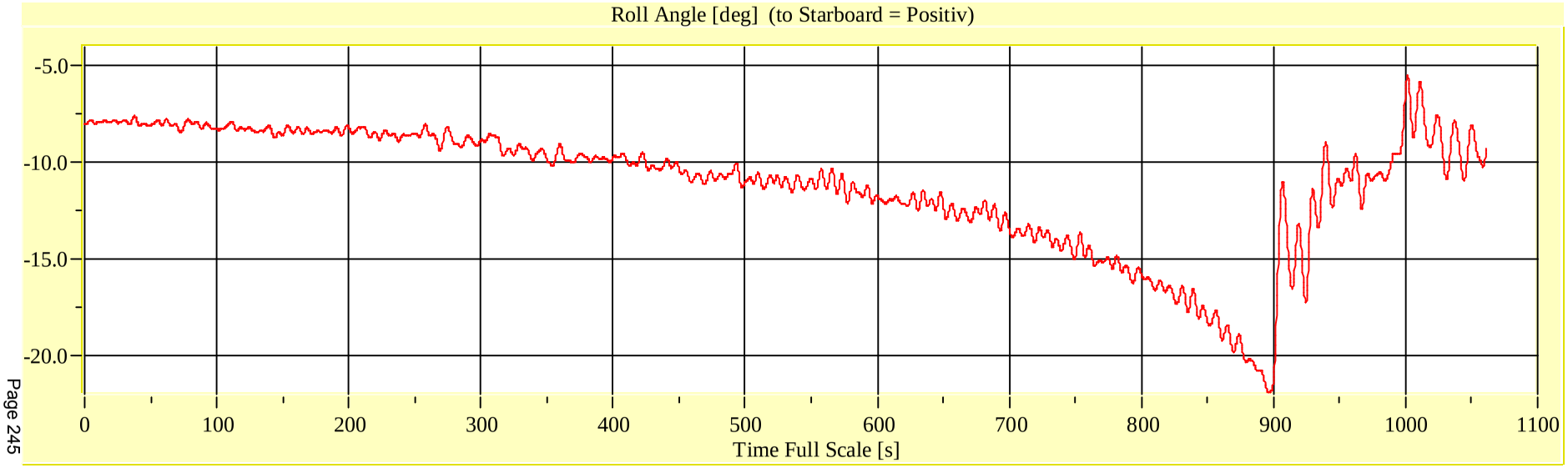


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-01	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

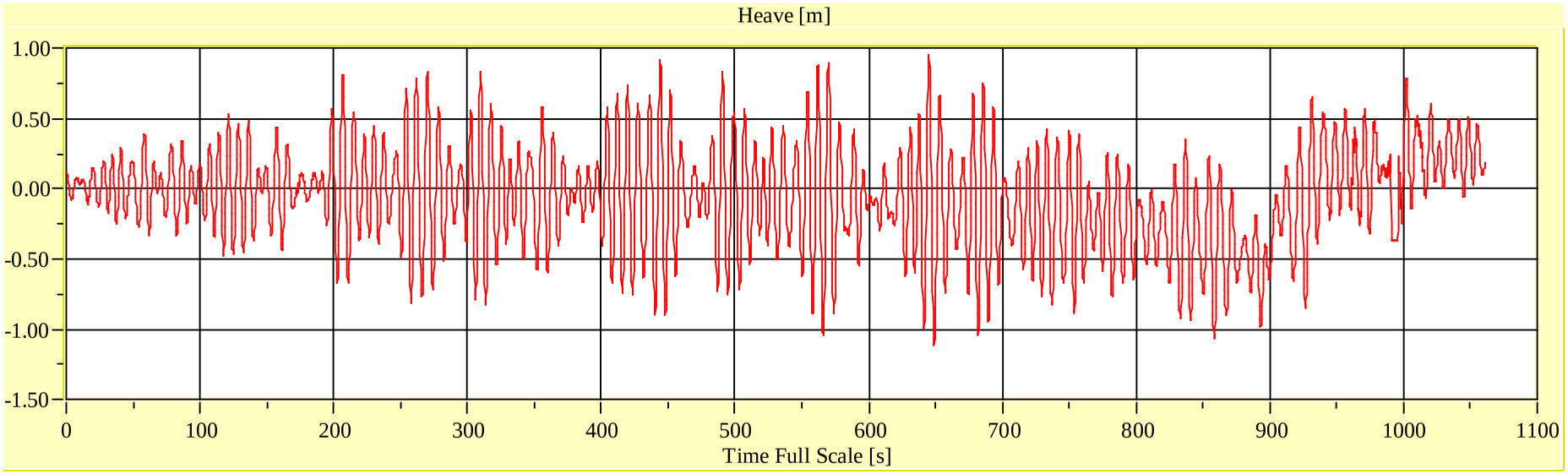


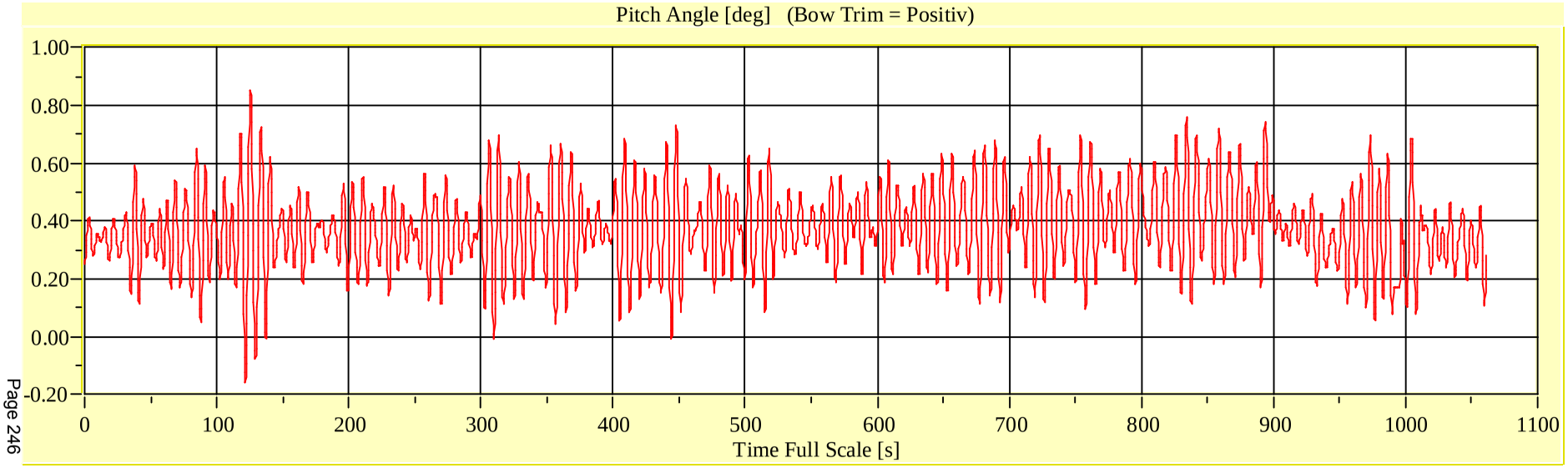


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-01	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

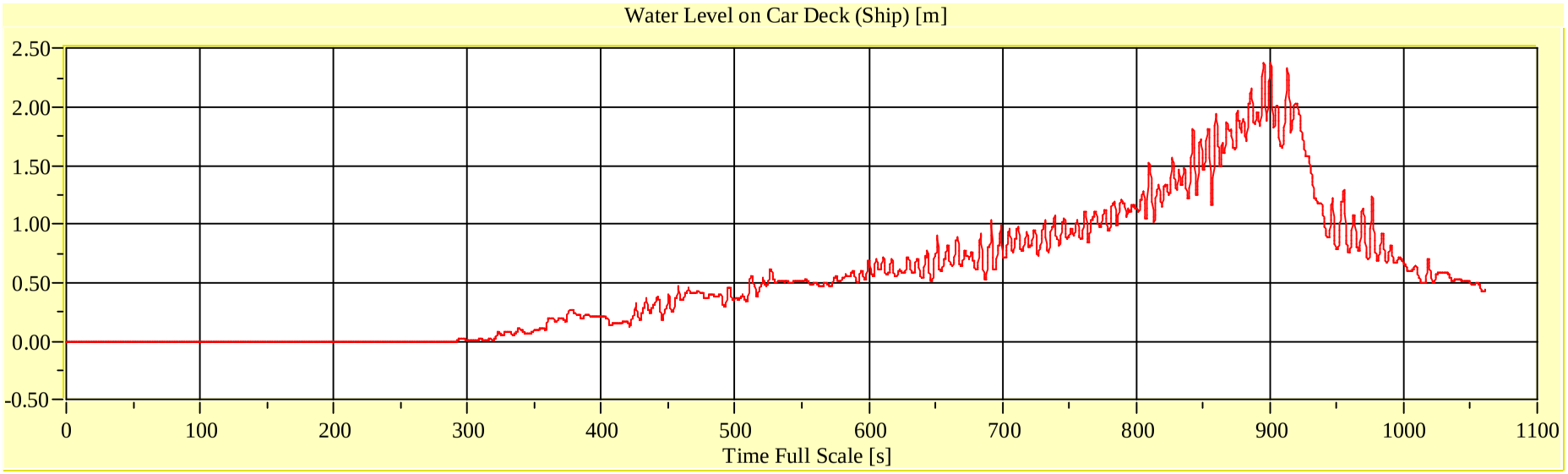


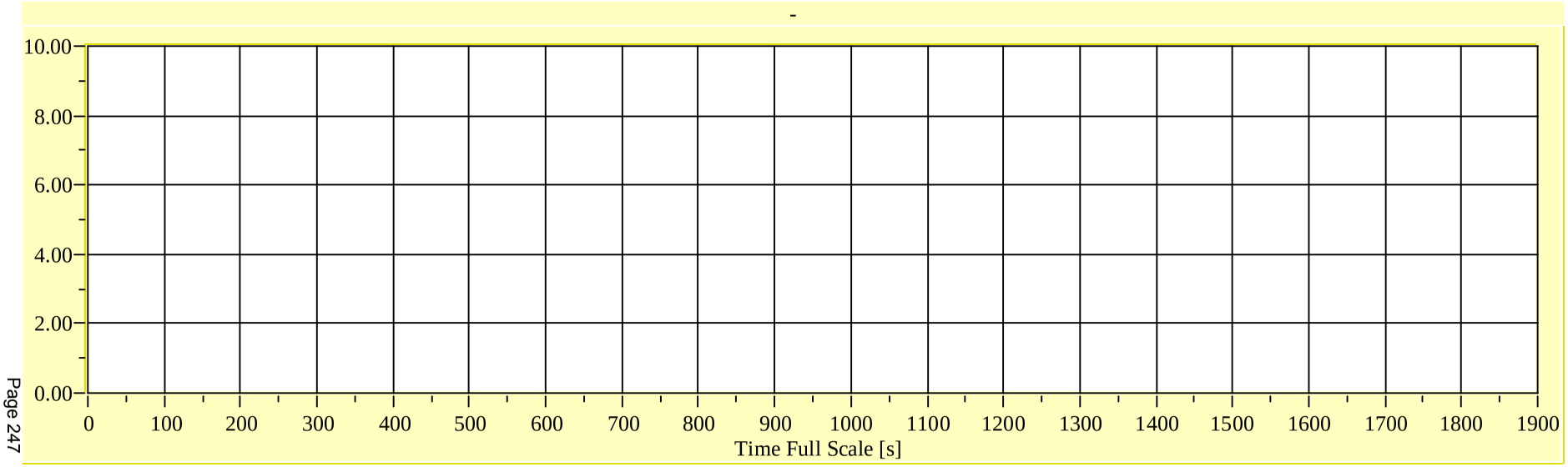


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-01	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

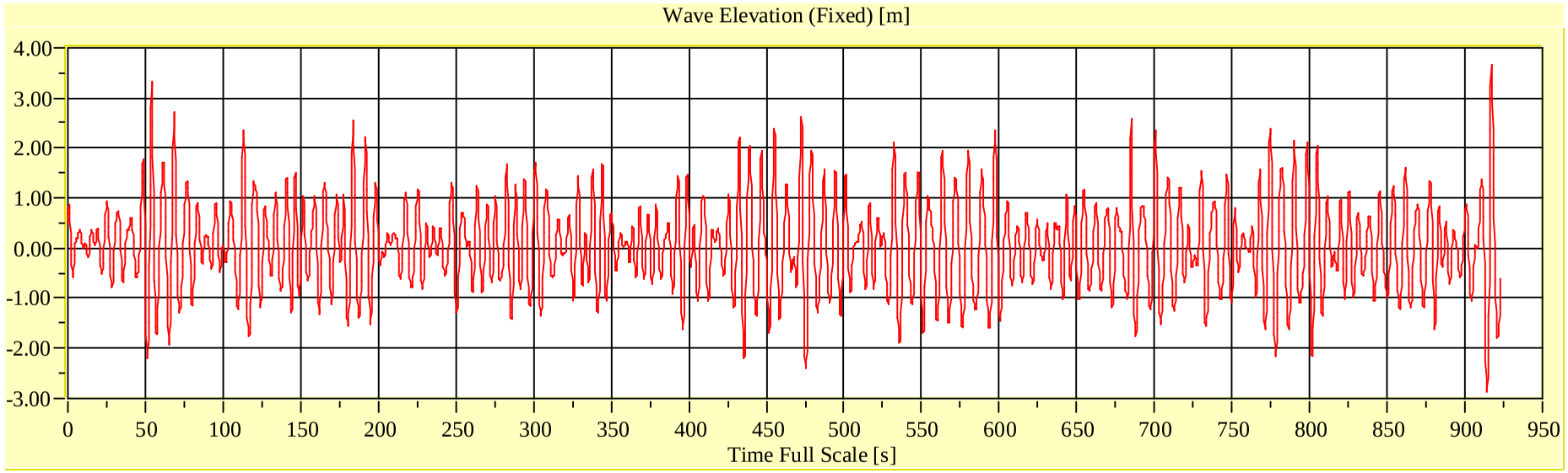


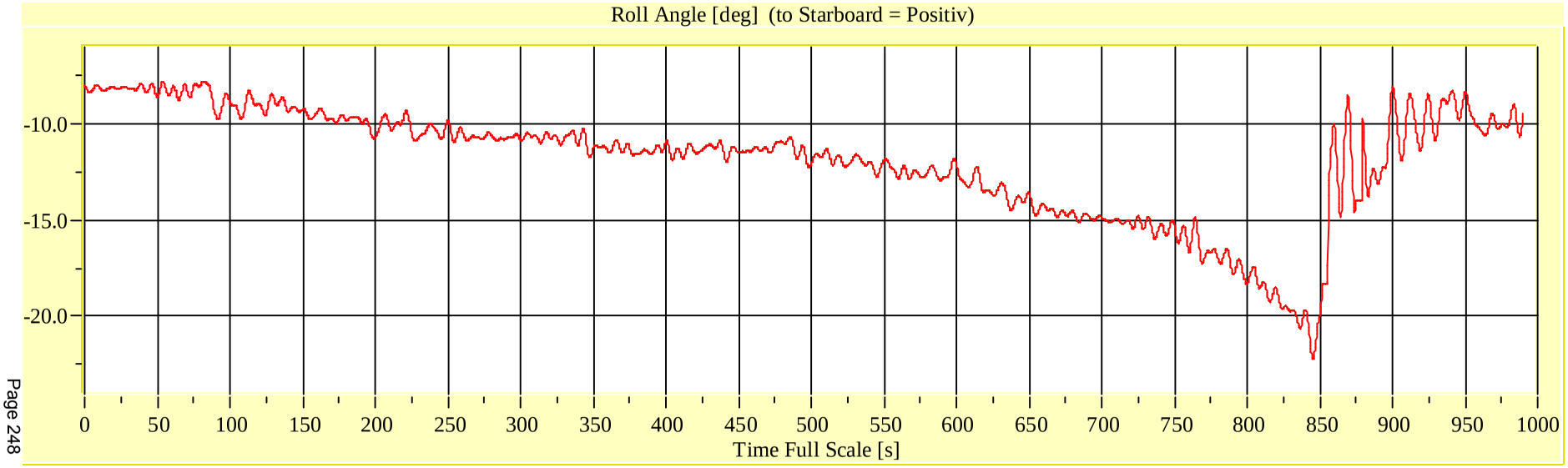


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-02	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

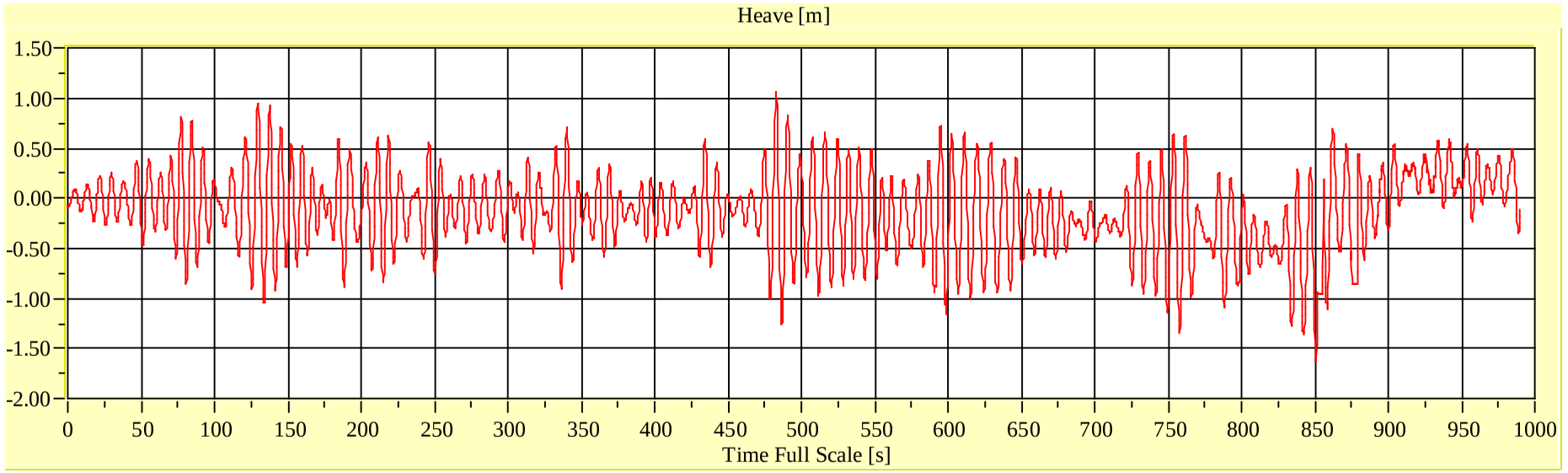


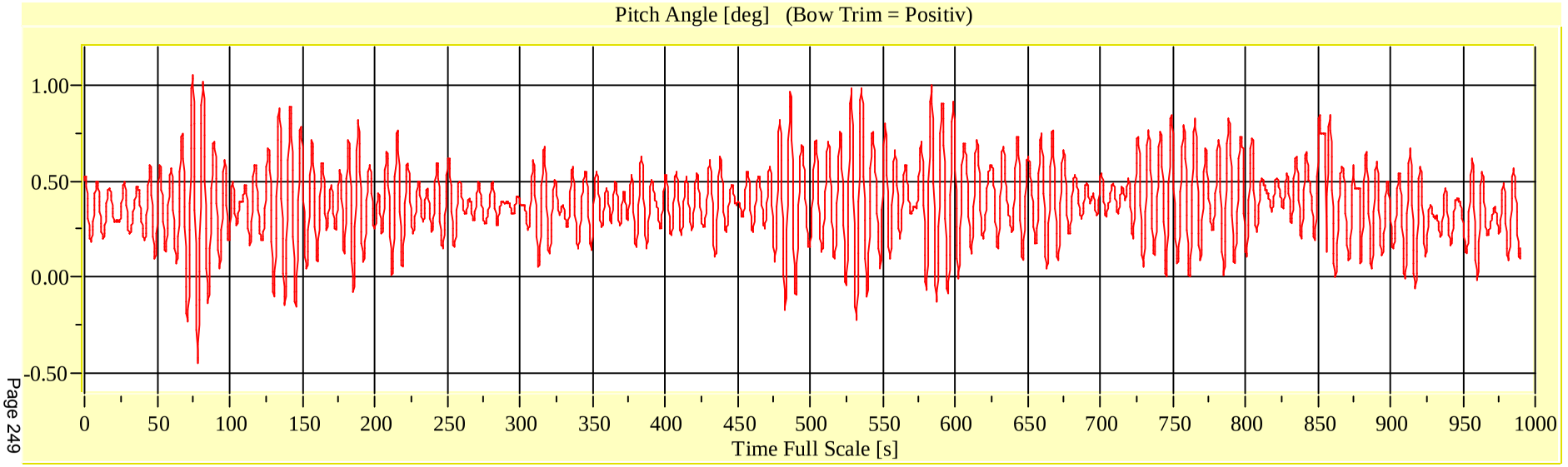


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-02	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3



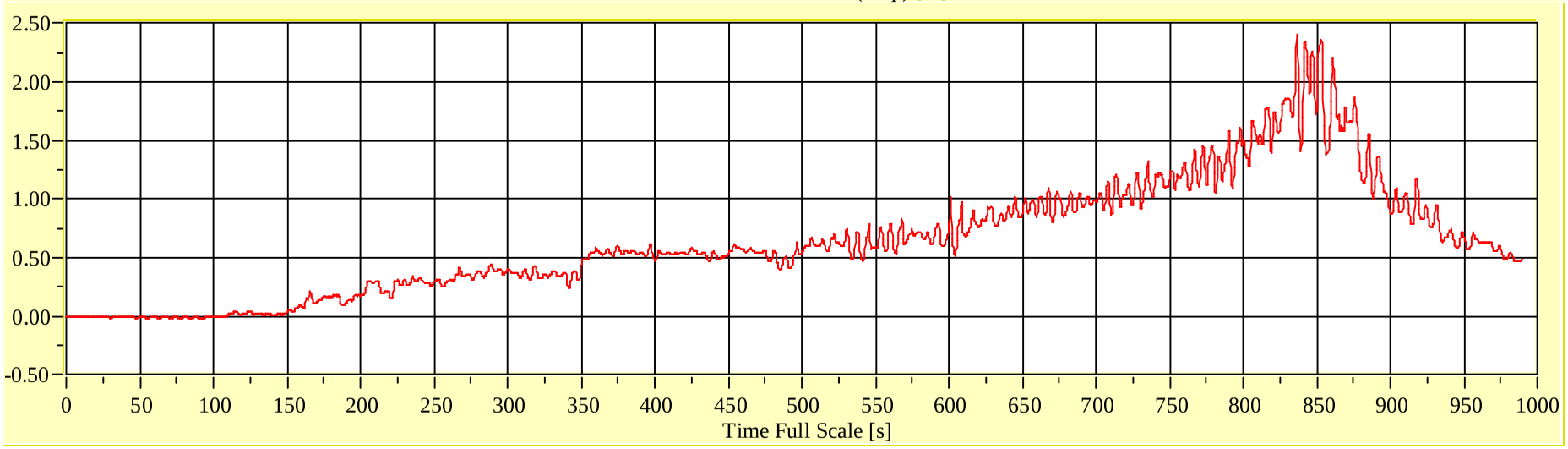


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-02	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

Water Level on Car Deck (Ship) [m]



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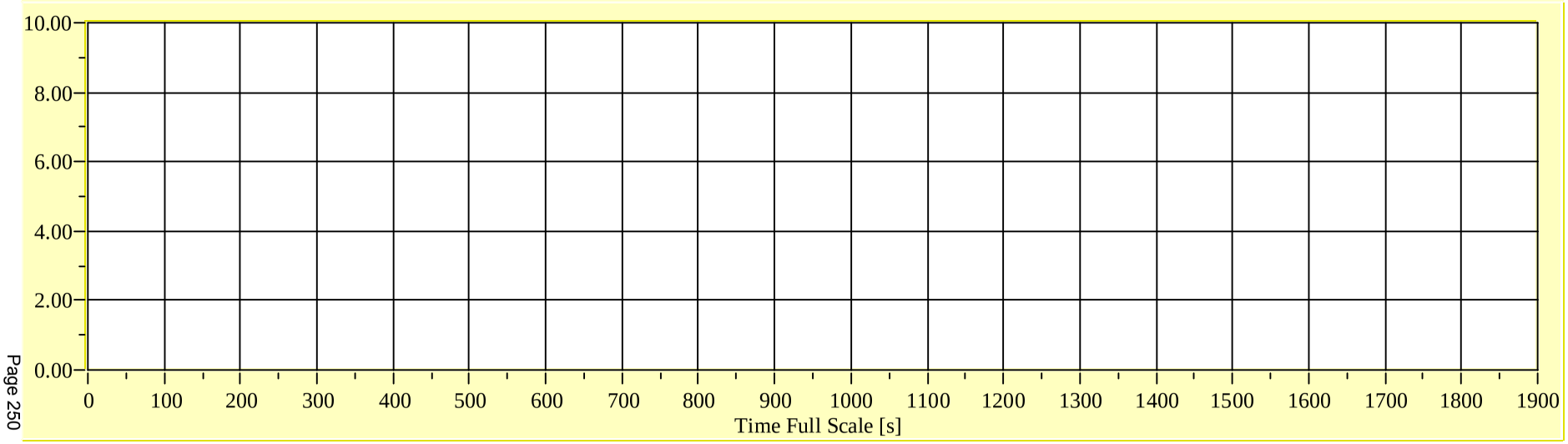
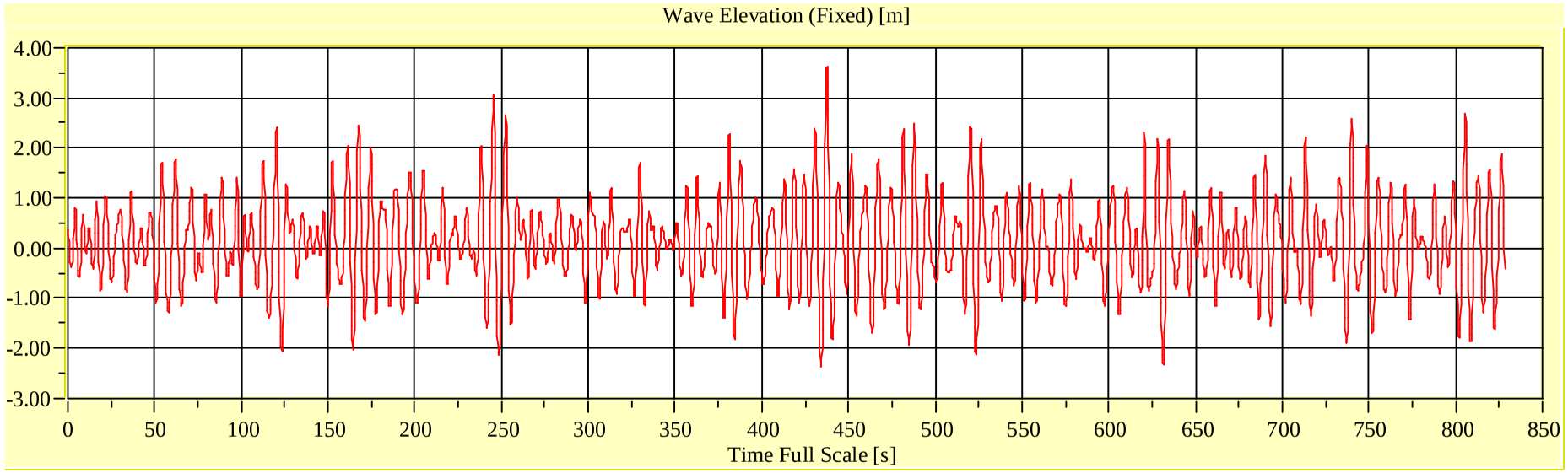
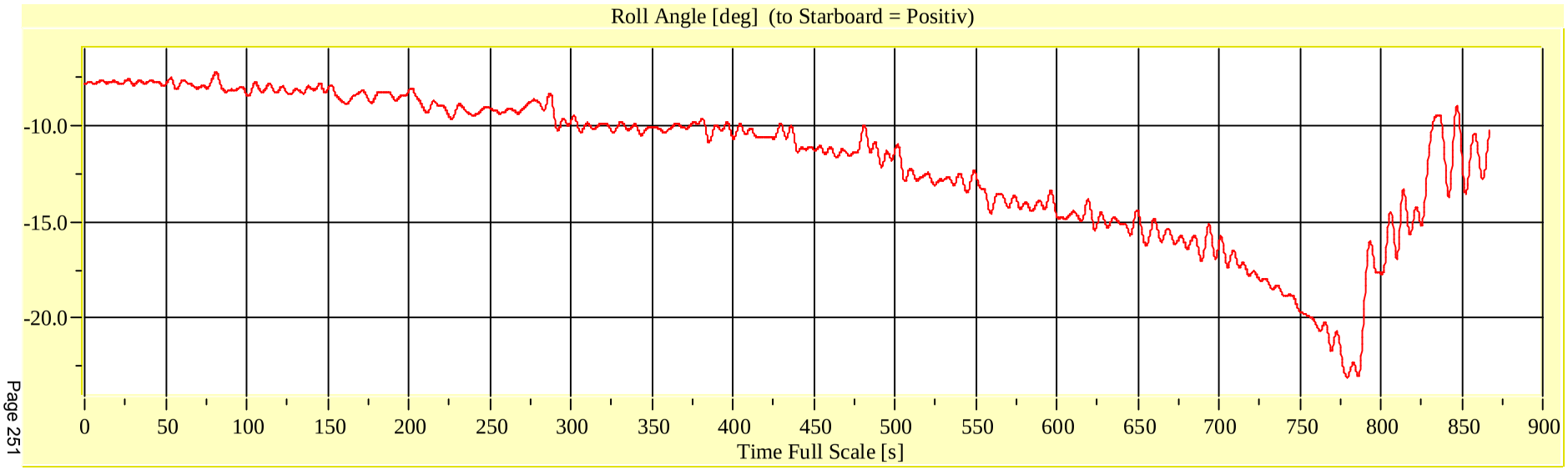


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-03	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

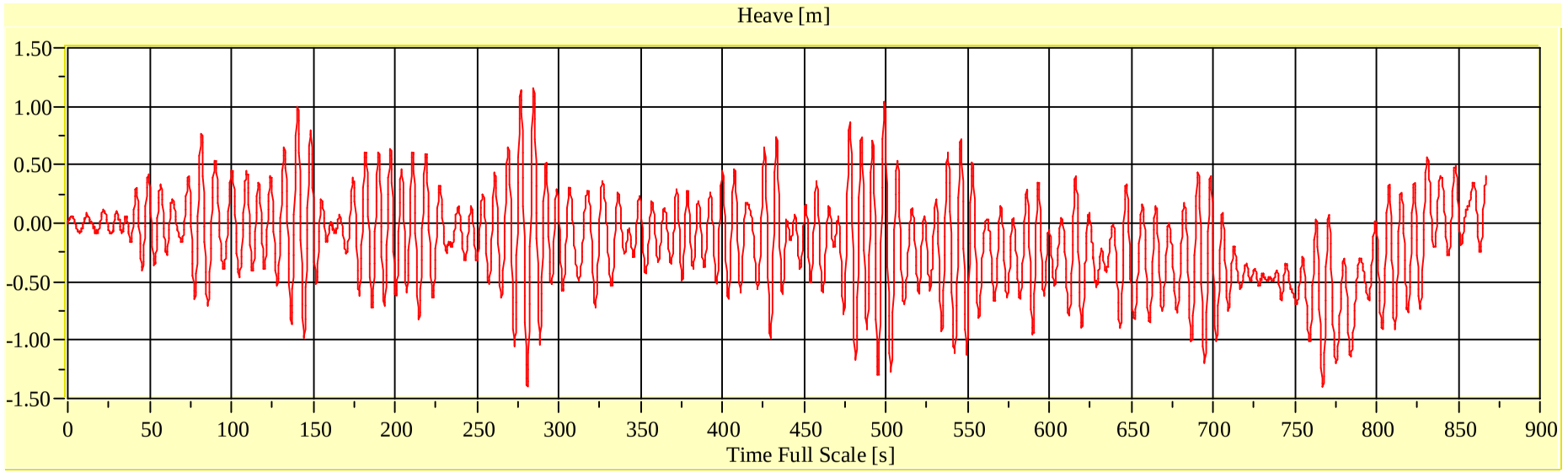


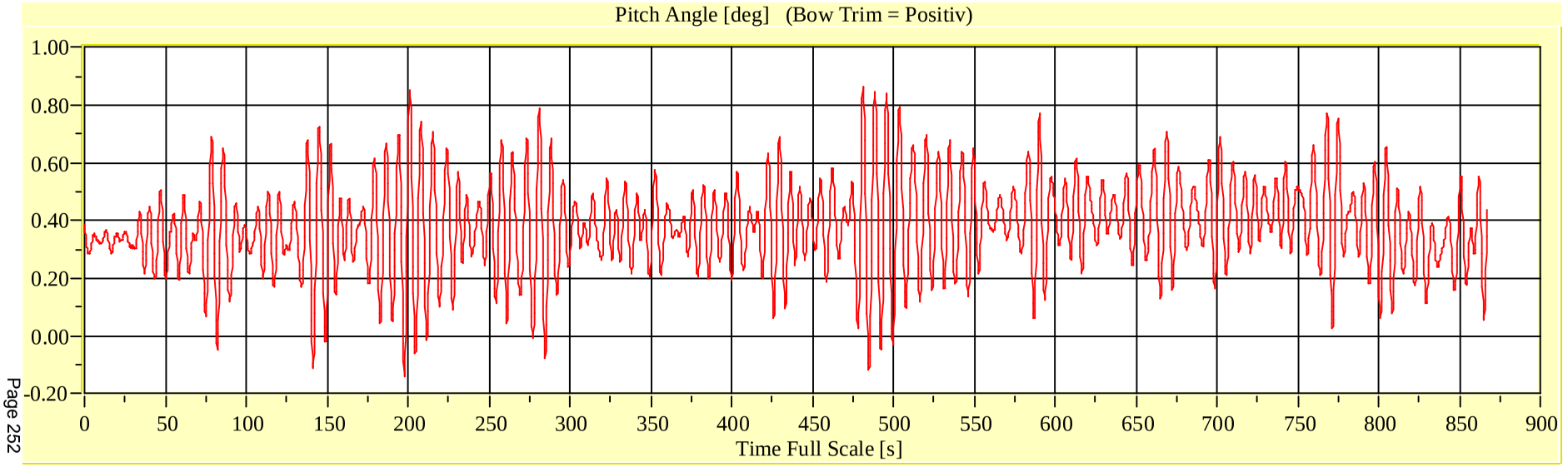


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-03	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

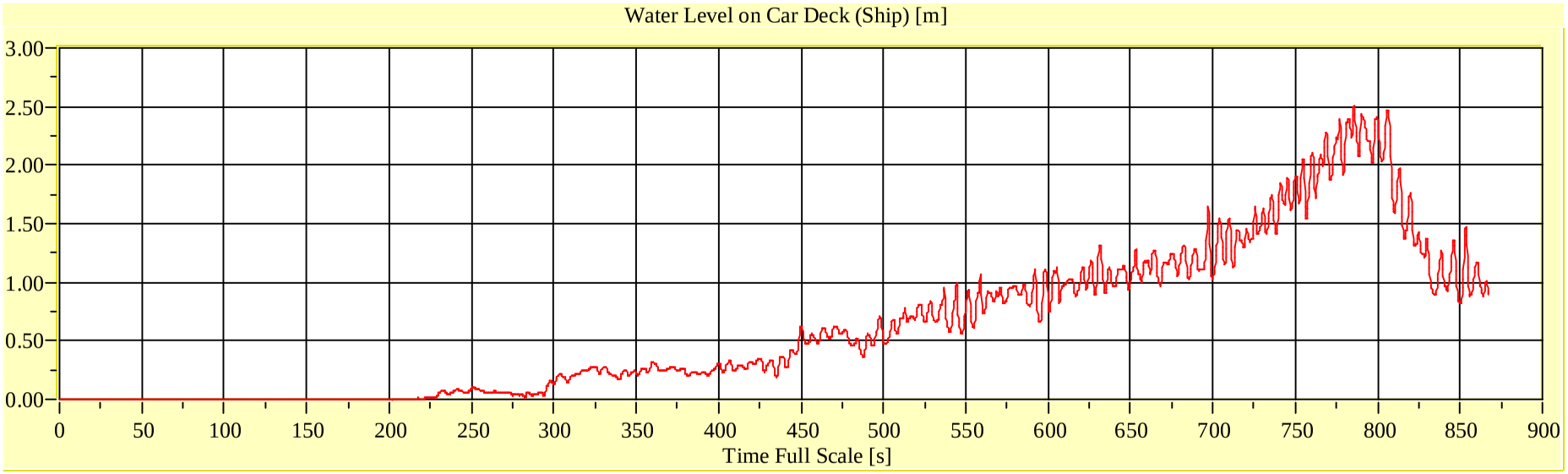




Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-03	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3



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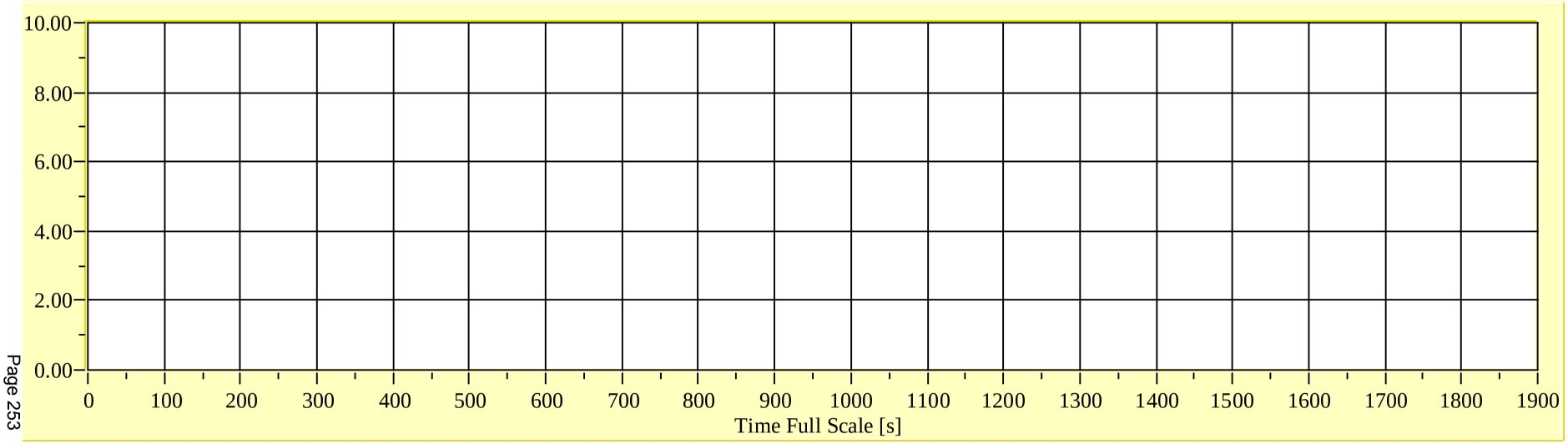
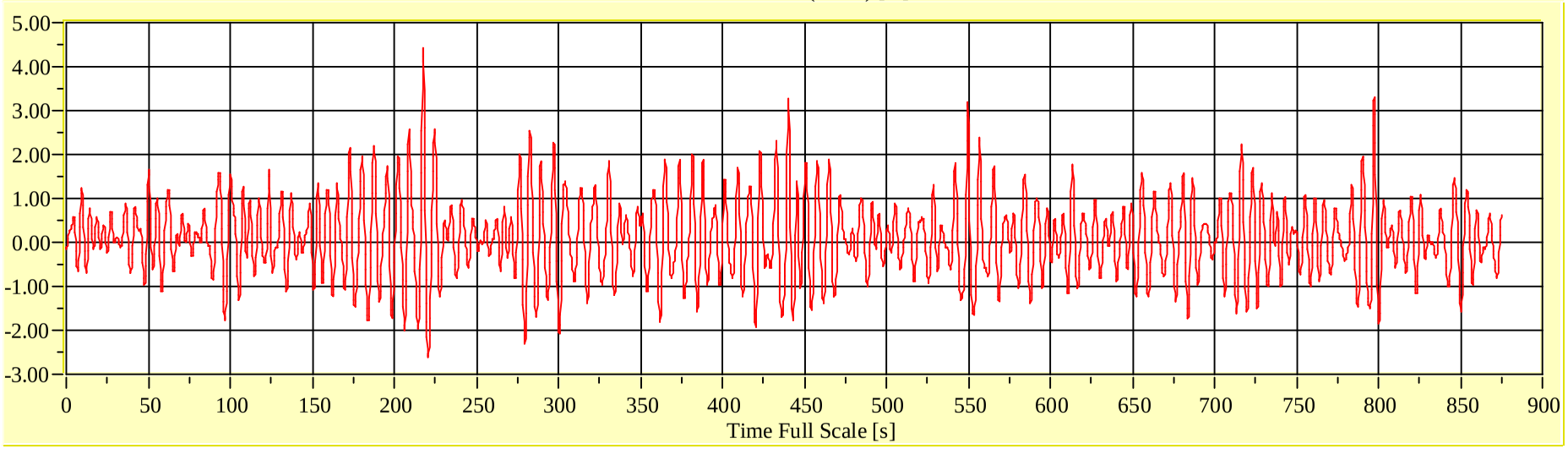


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

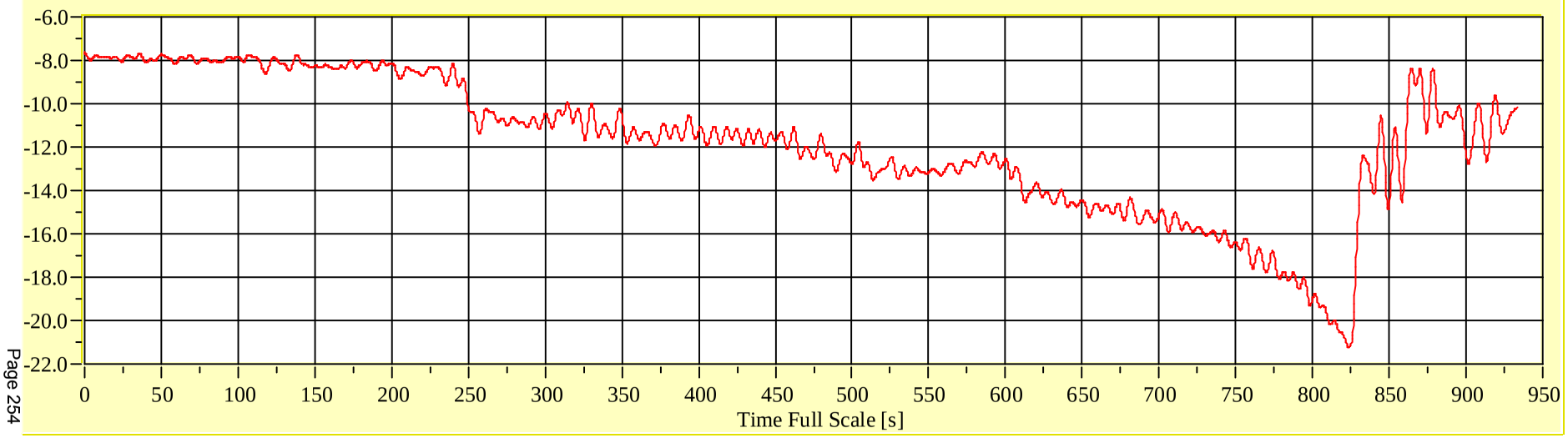
Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-04	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

Wave Elevation (Fixed) [m]



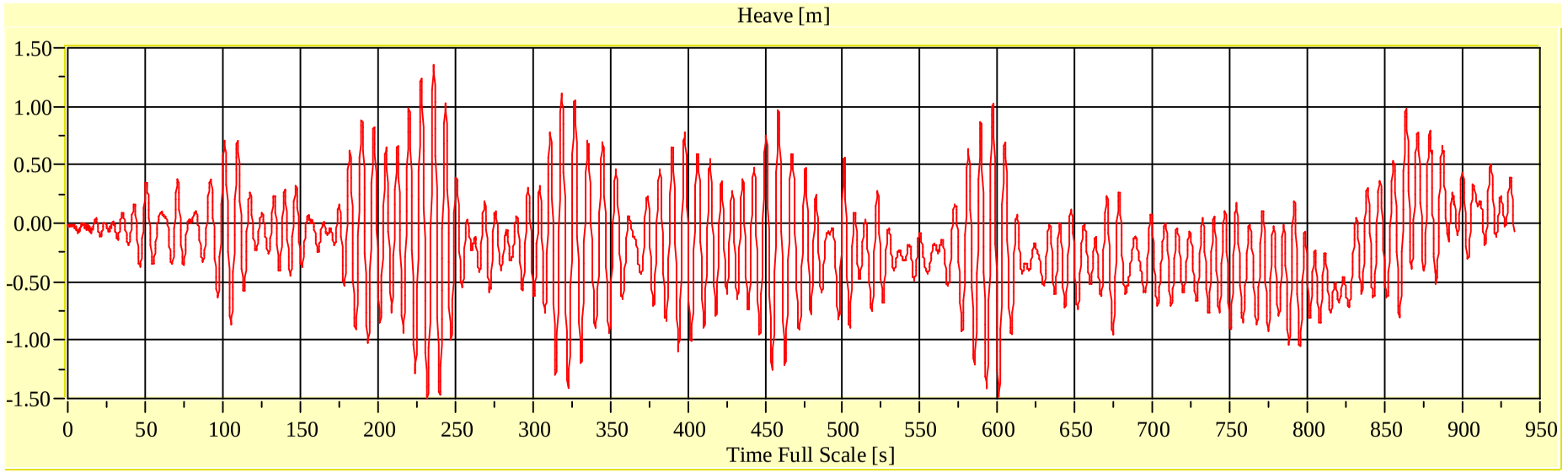
Roll Angle [deg] (to Starboard = Positiv)

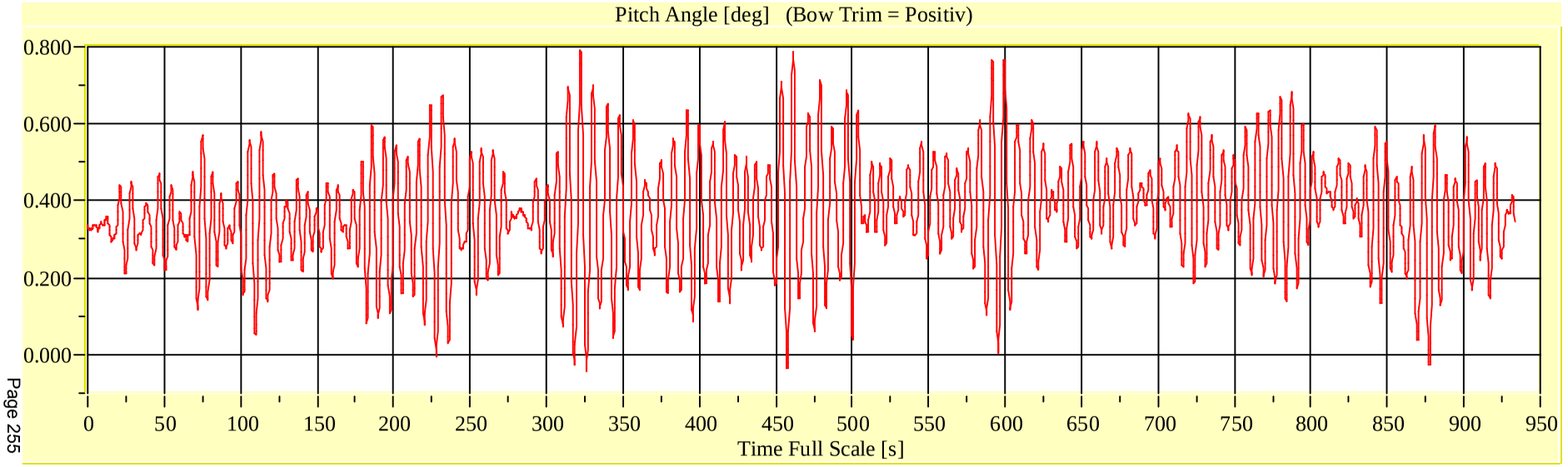


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-04	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3



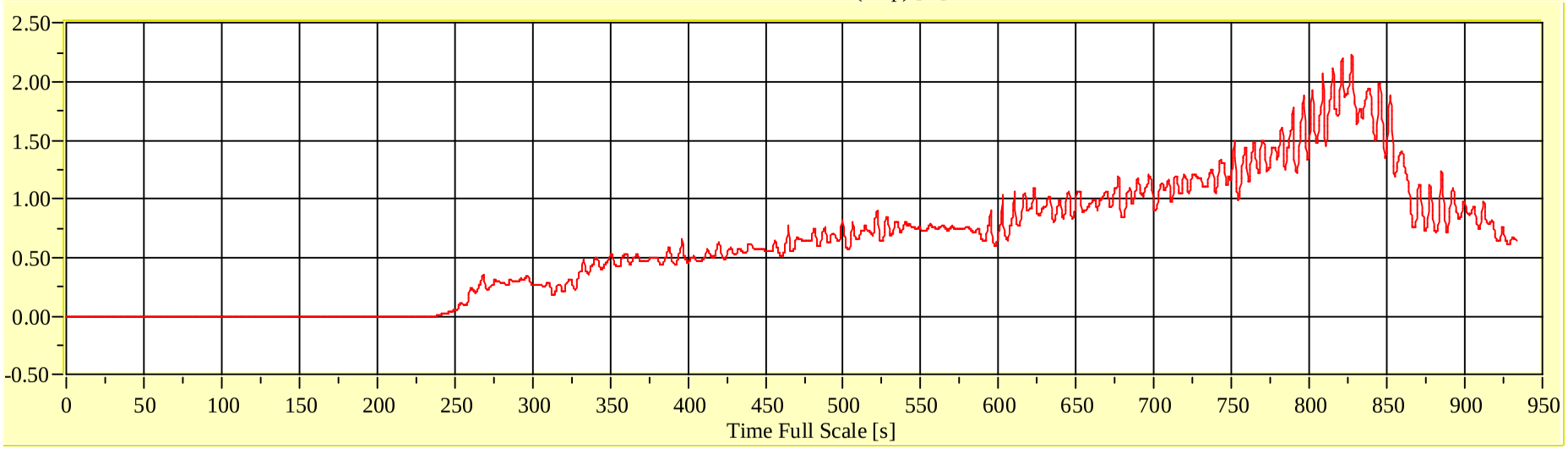


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-04	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

Water Level on Car Deck (Ship) [m]



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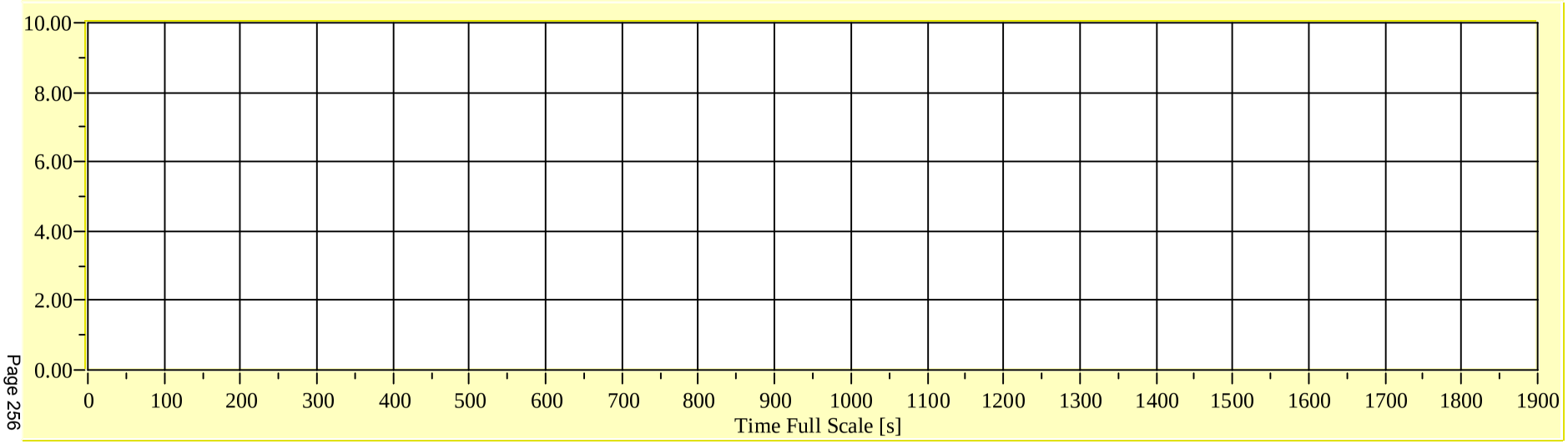
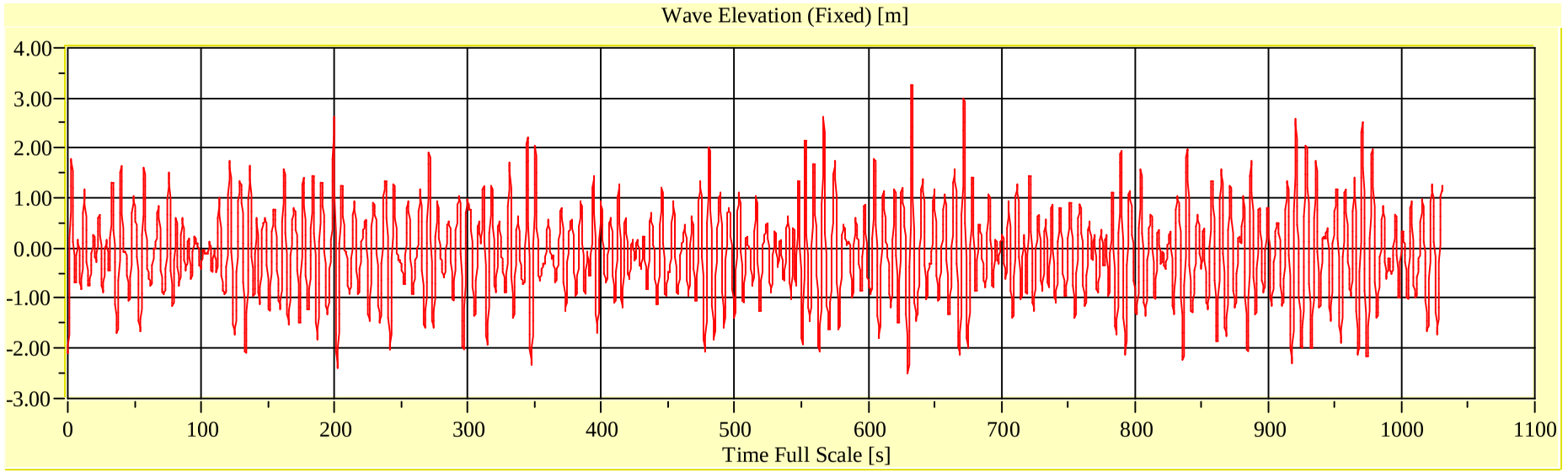
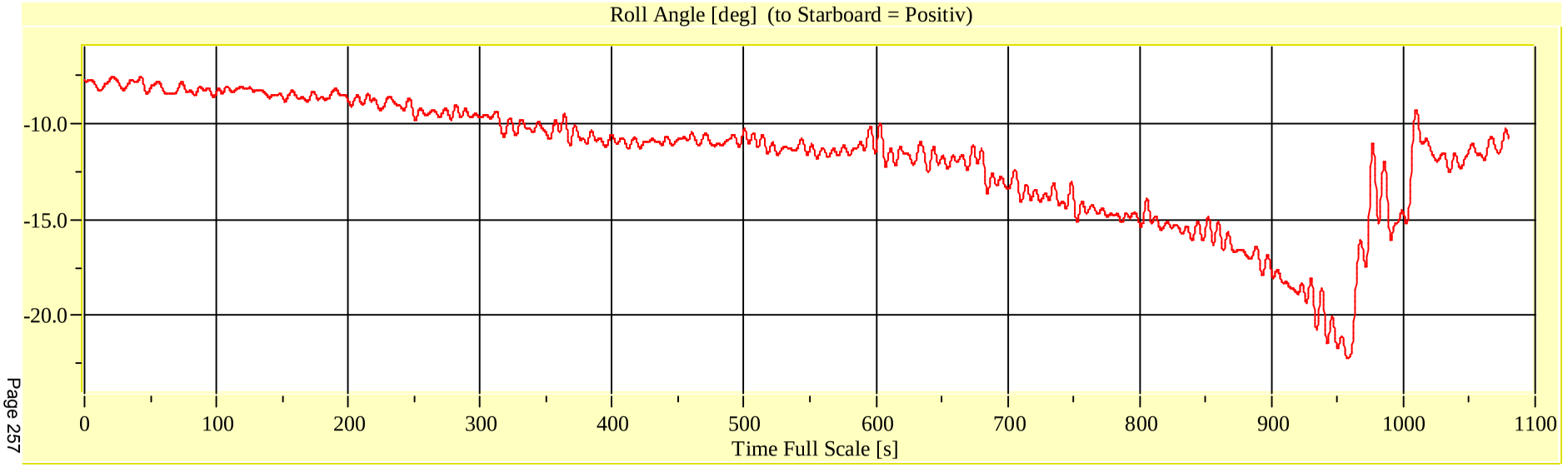


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-05	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

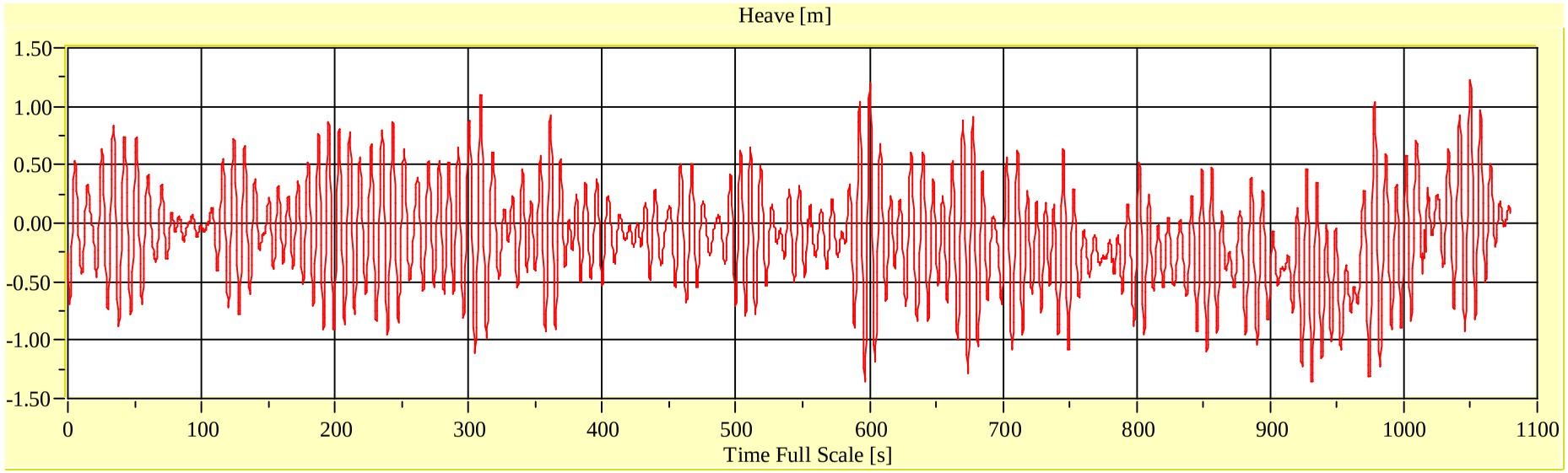


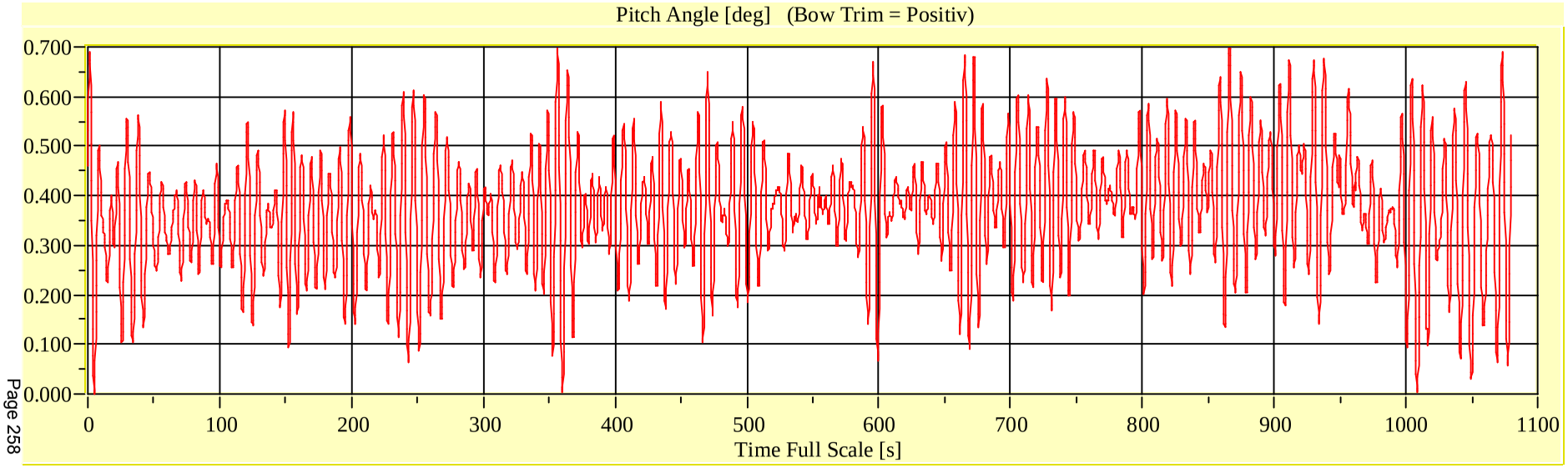


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-05	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

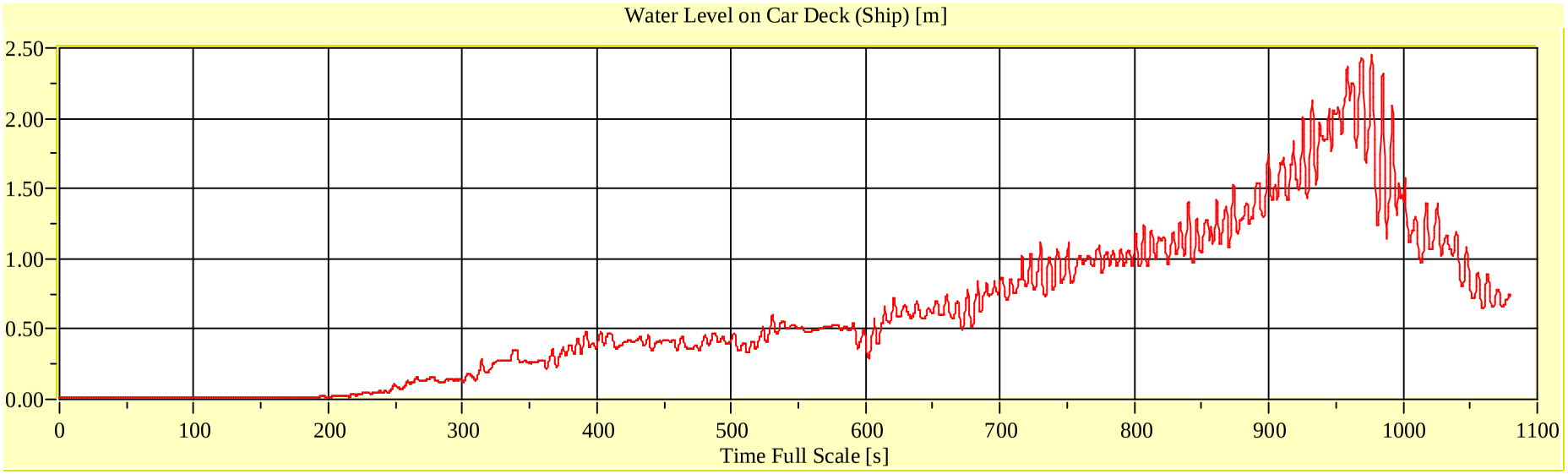


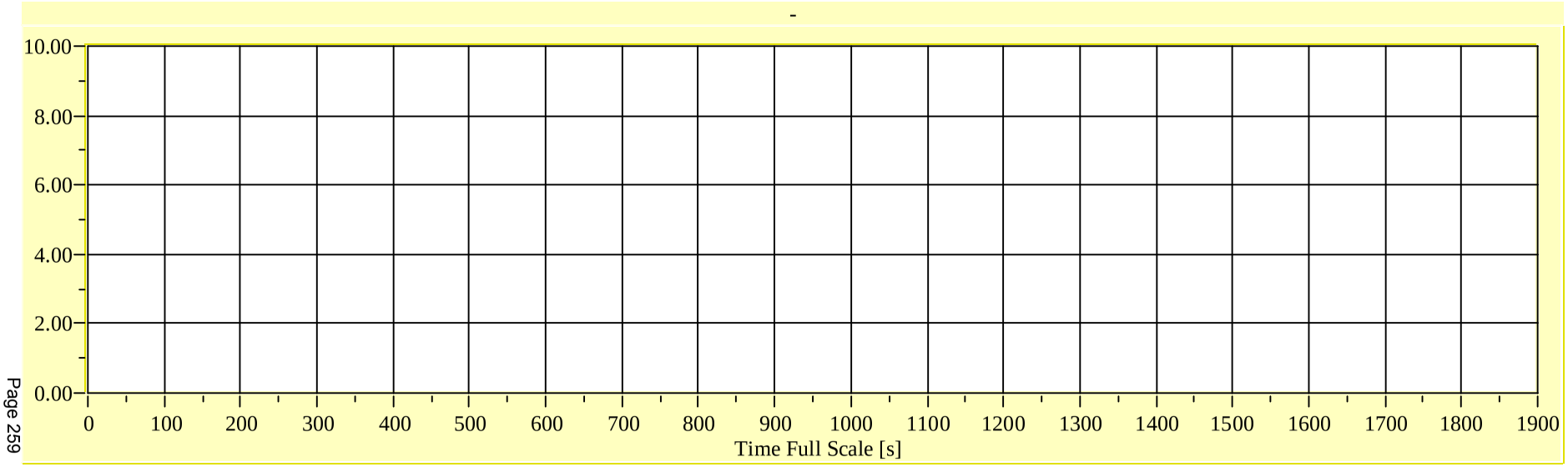


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29737-05	Target Waves: Hs = 3,5 m Tp = 7,4833 s	gamma = 3,3

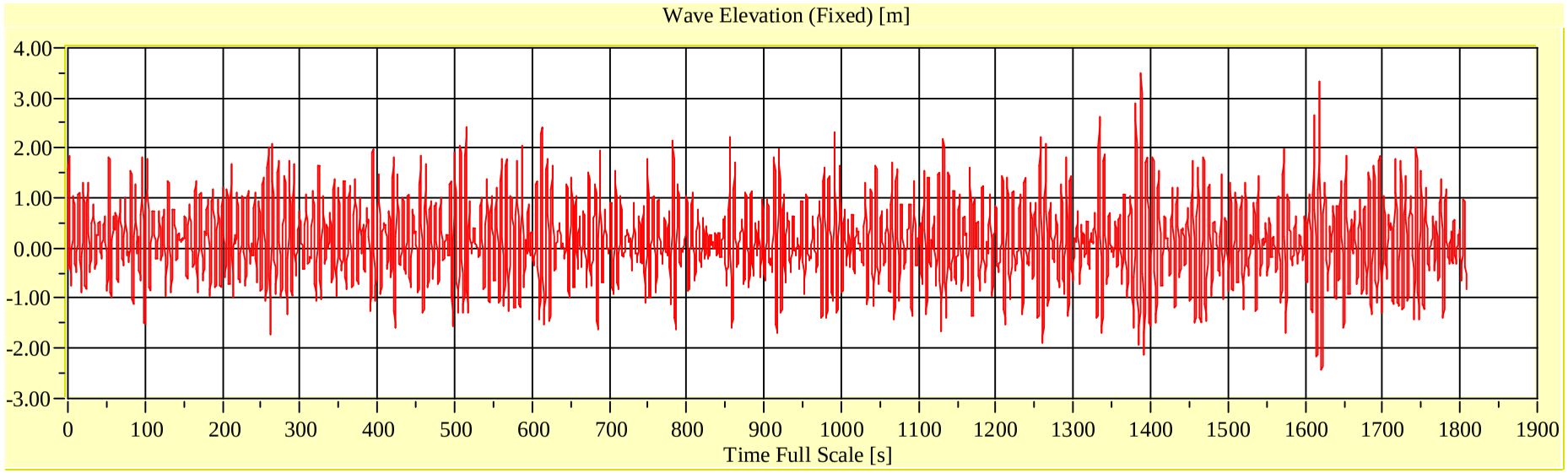


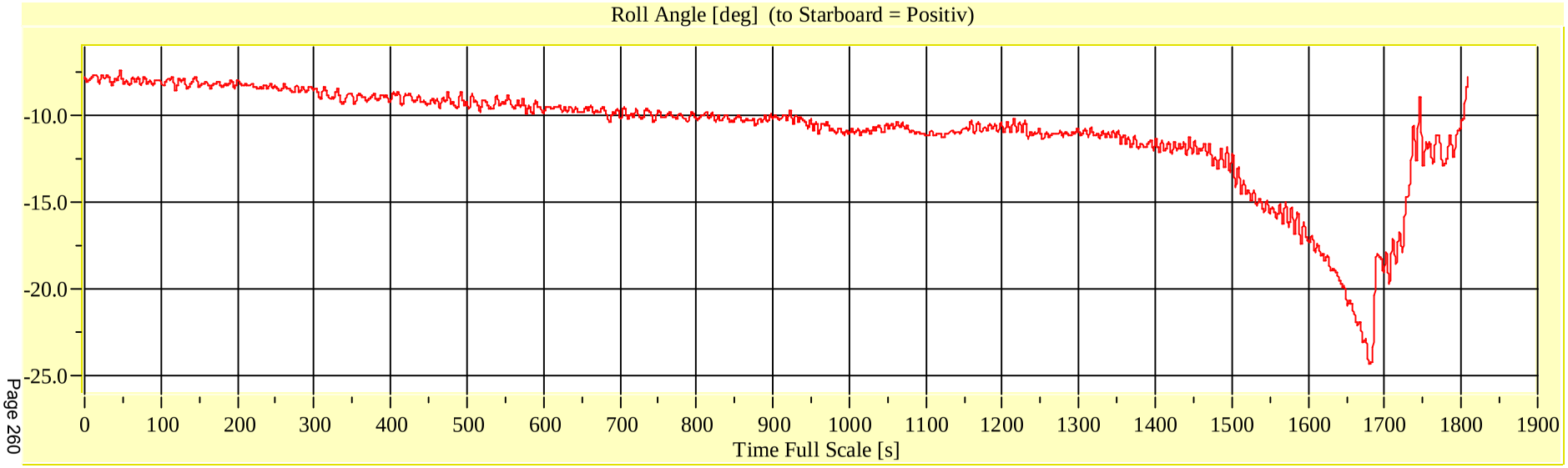


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-01	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

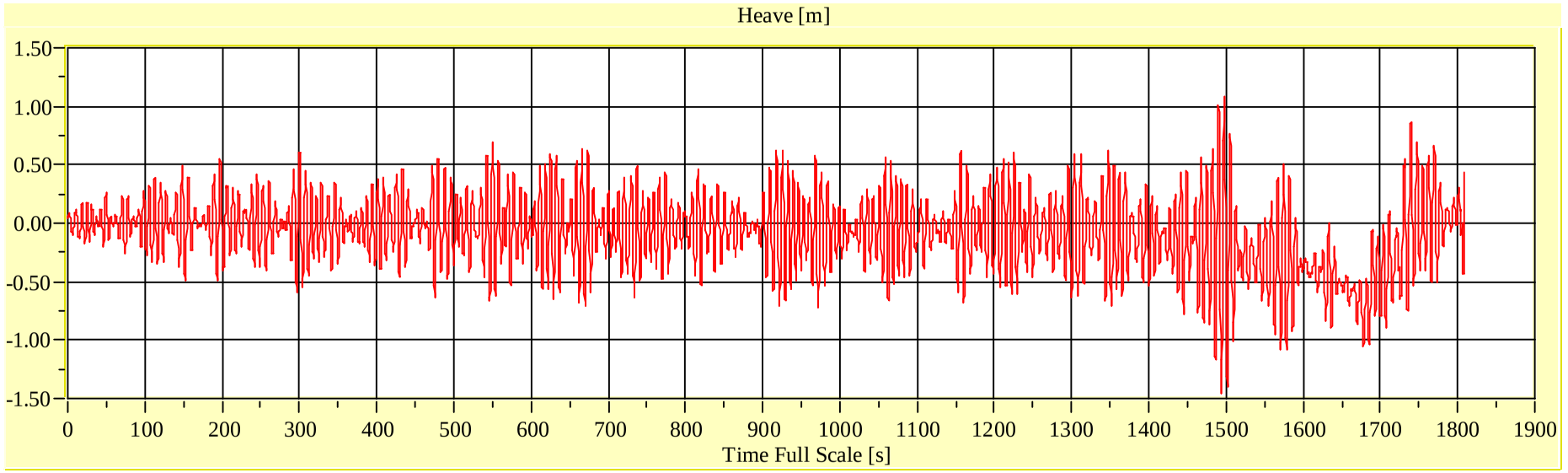


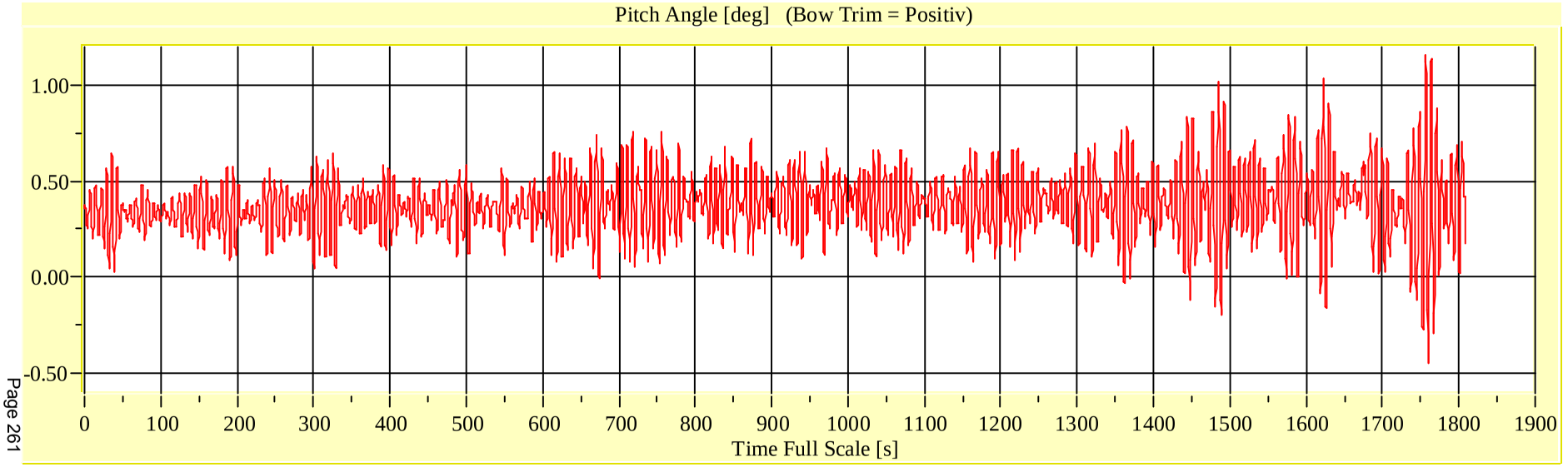


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-01	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

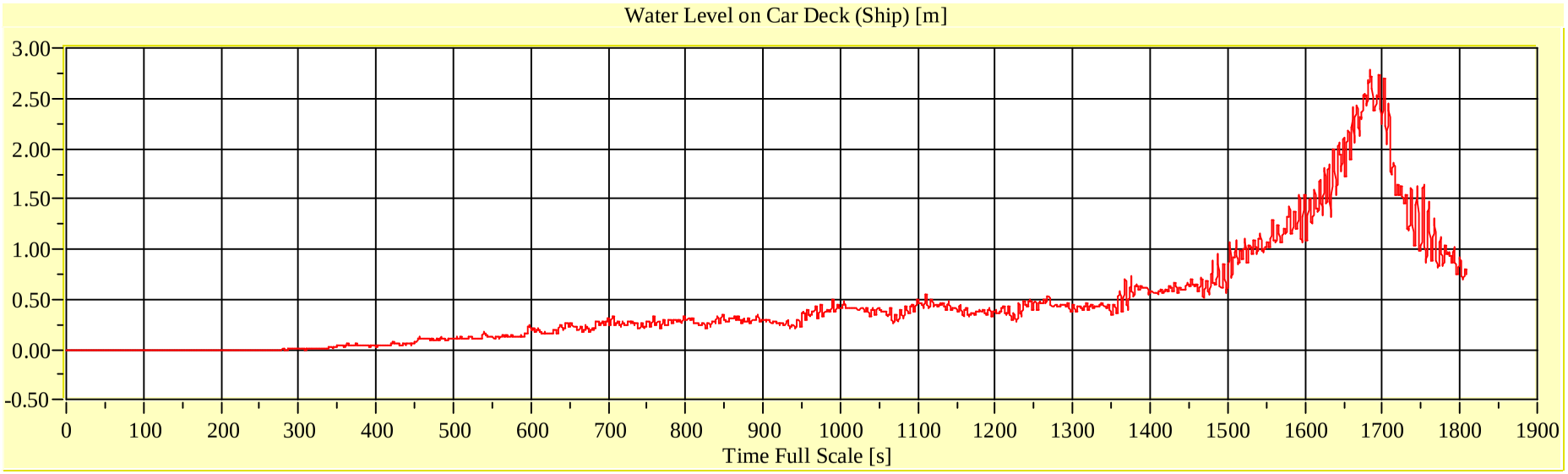




Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-01	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3



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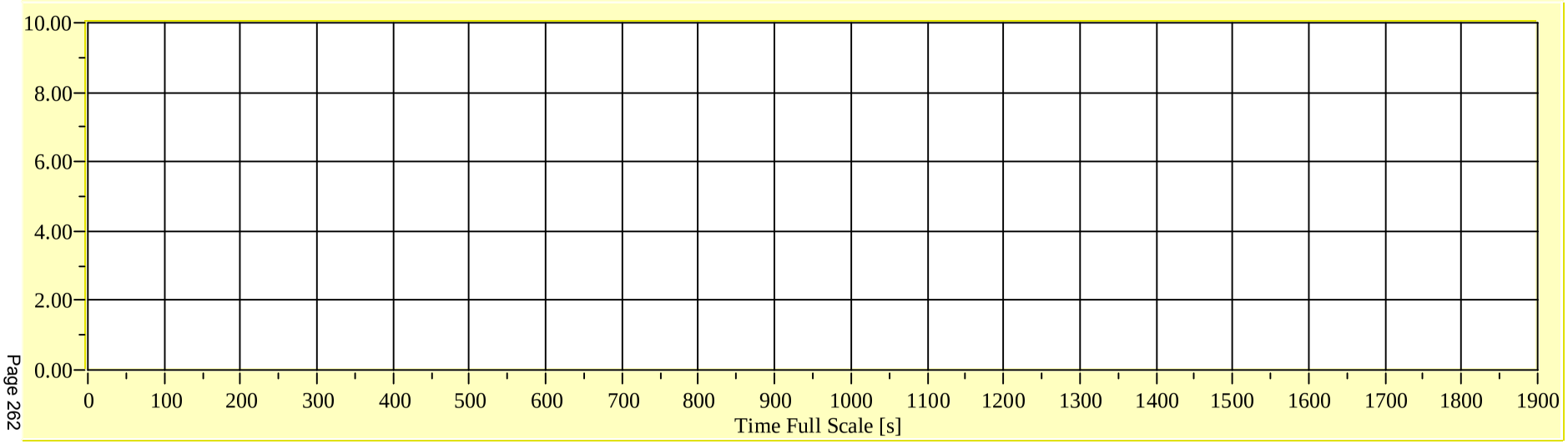
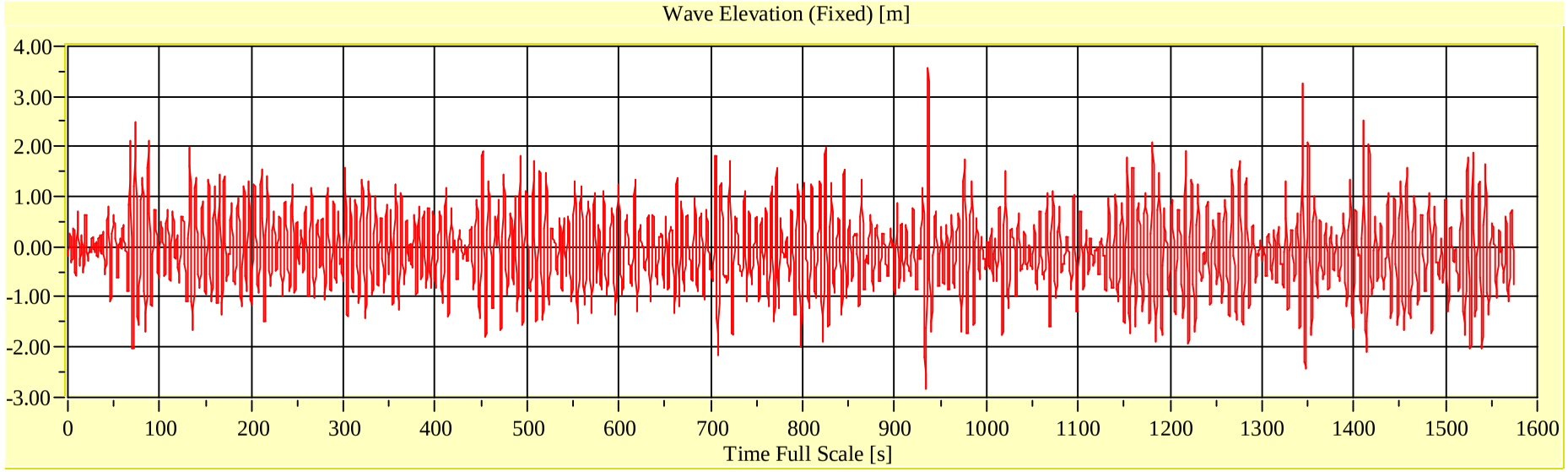
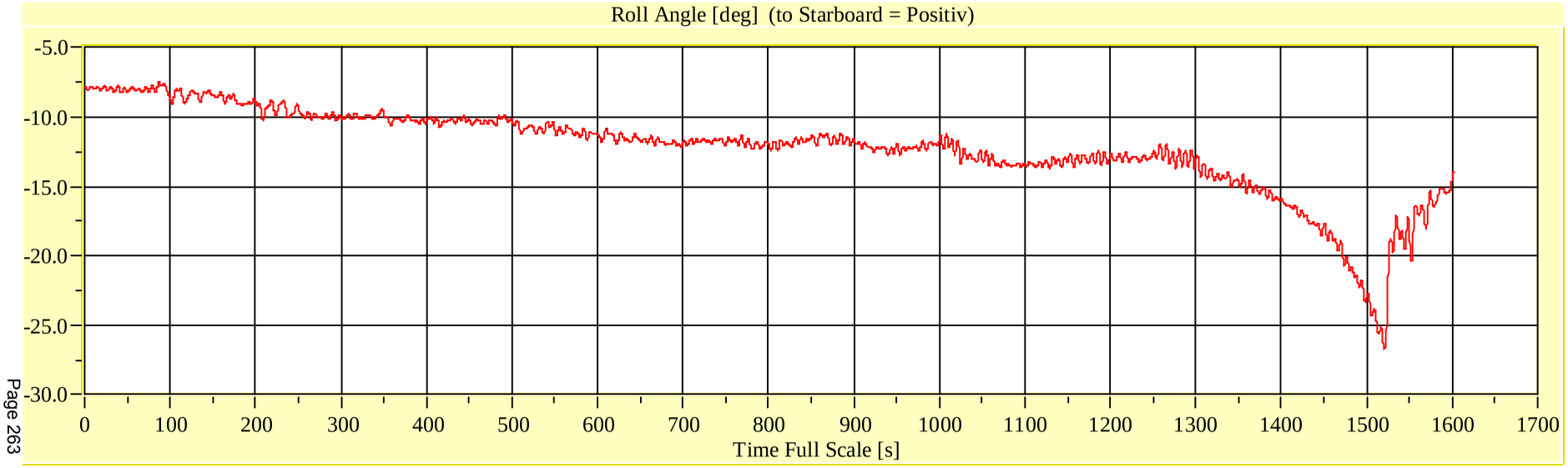


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-02	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

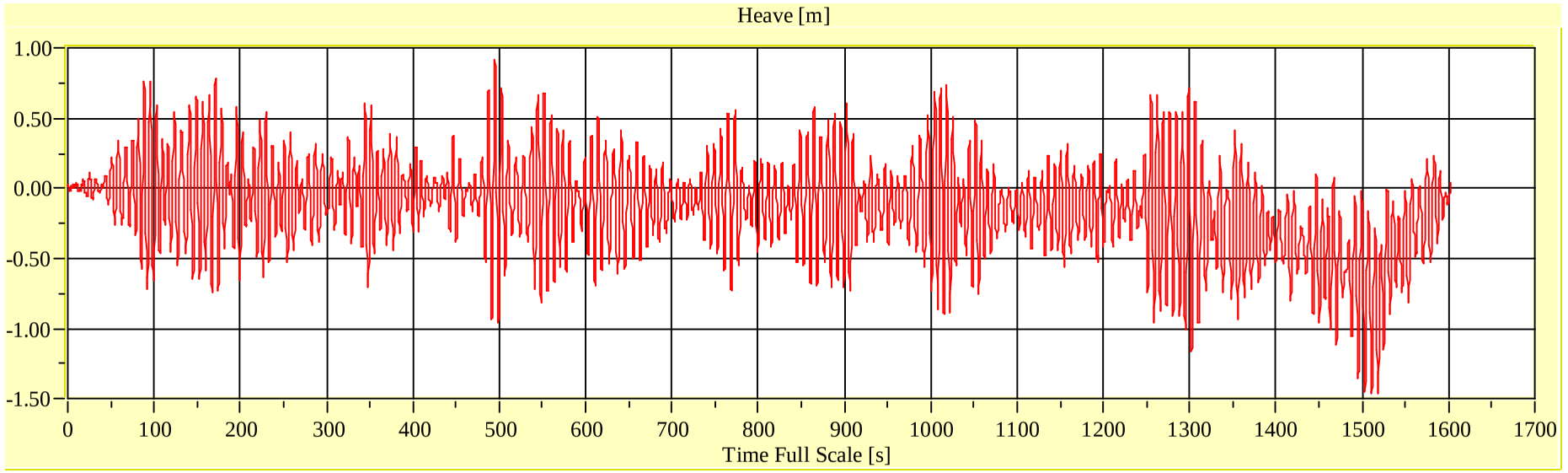


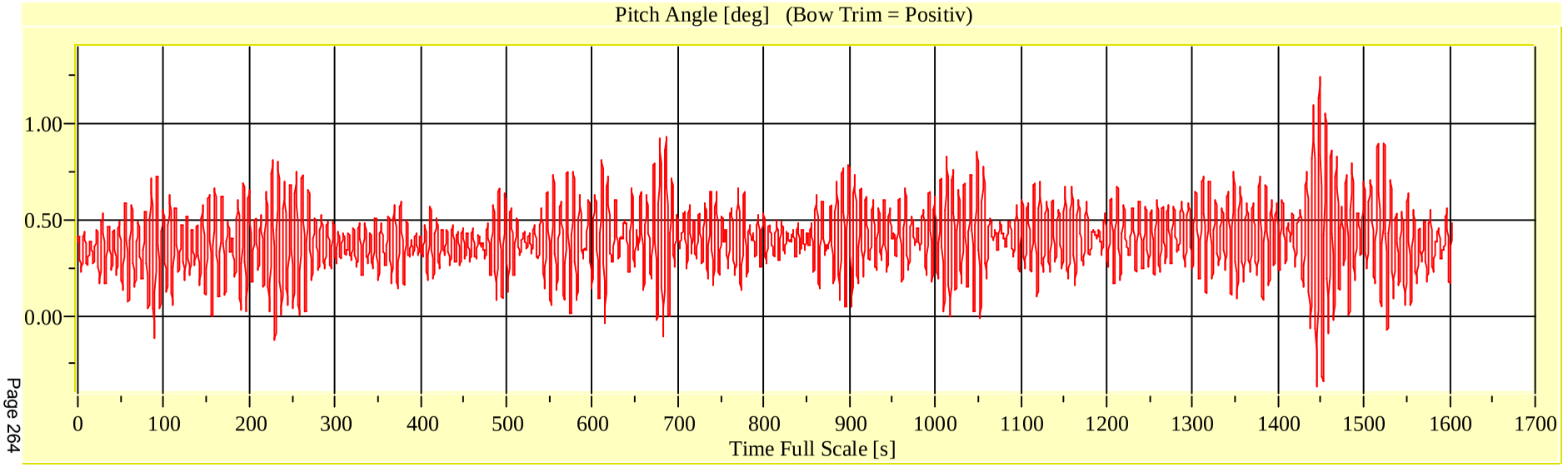


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-02	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

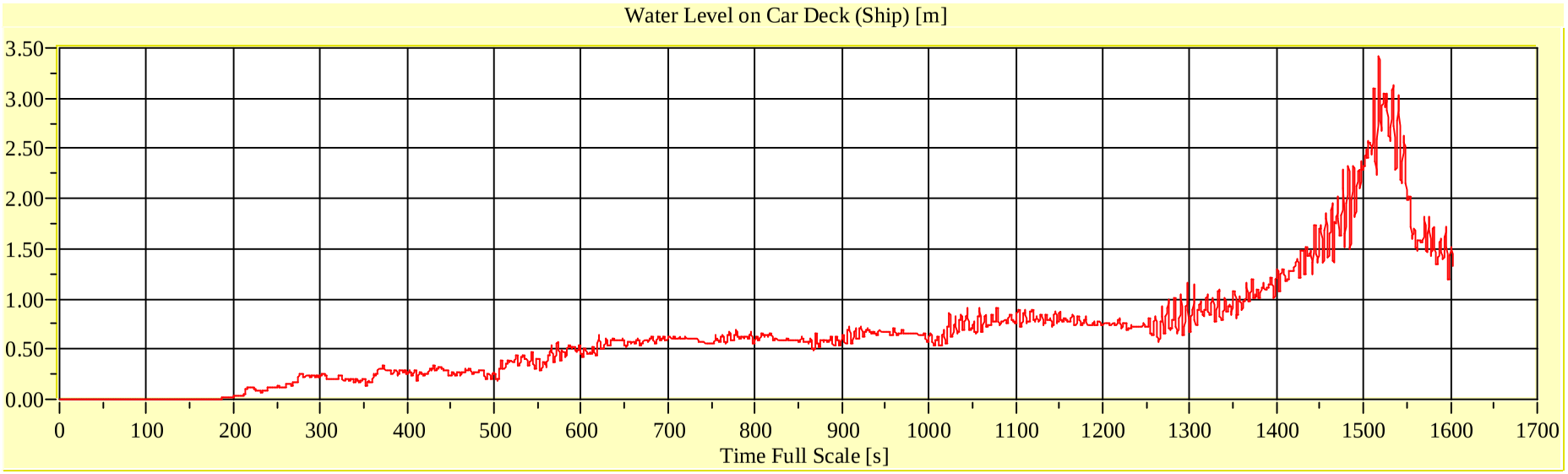




Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-02	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3



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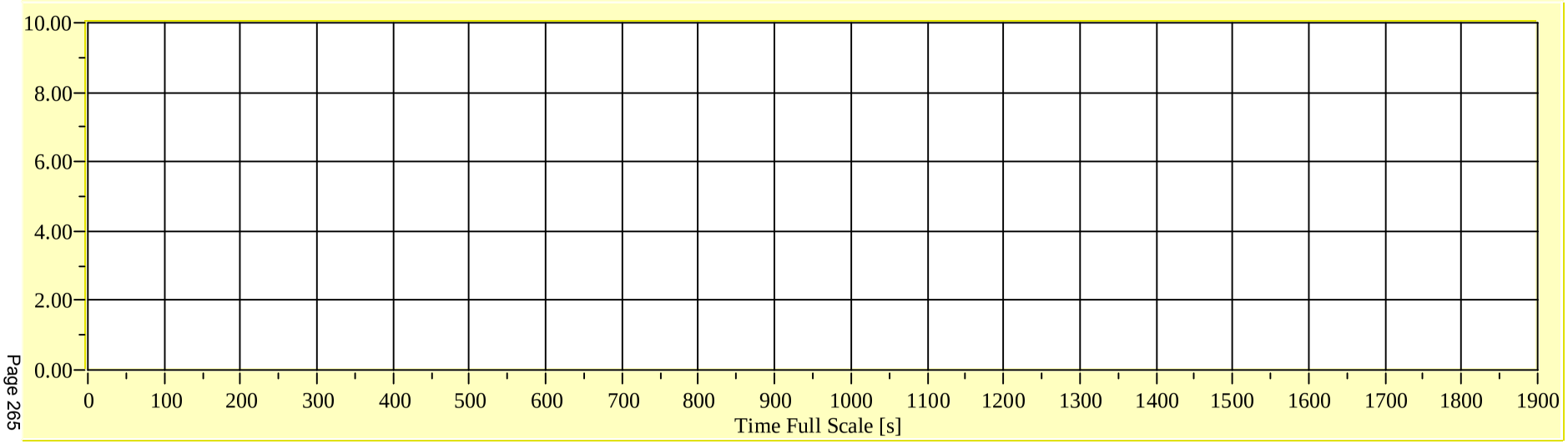
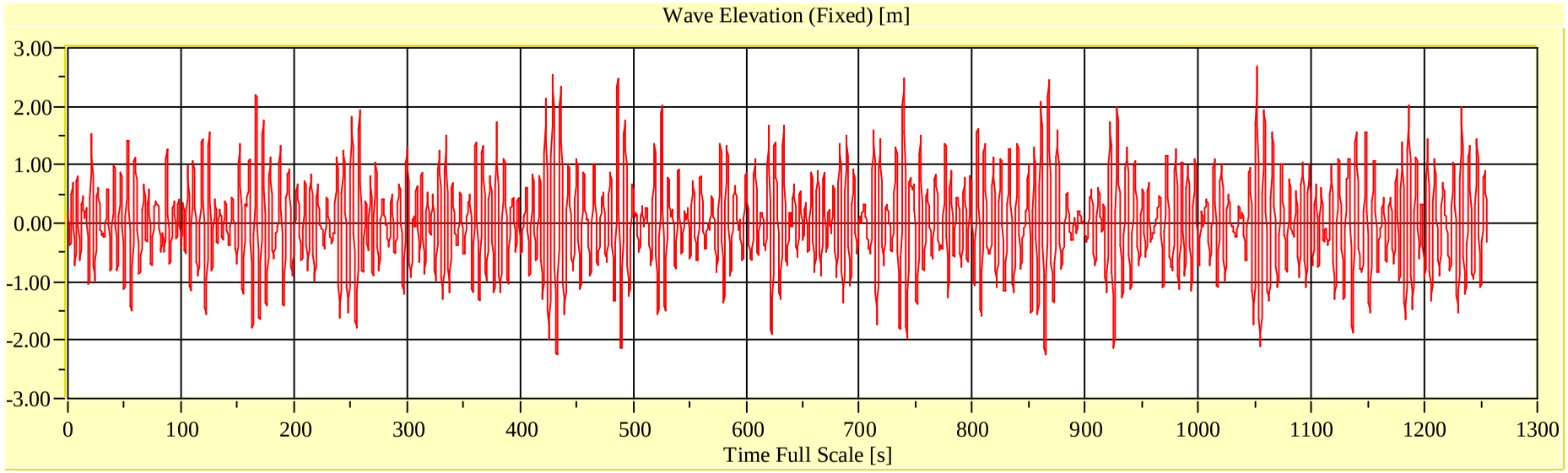
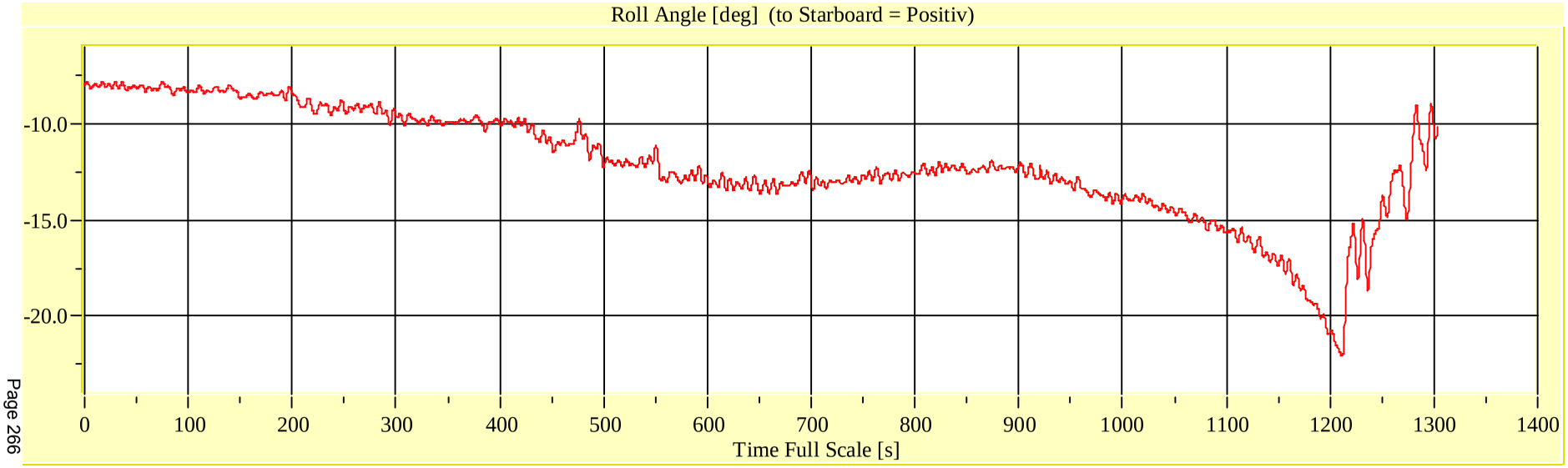


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-03	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

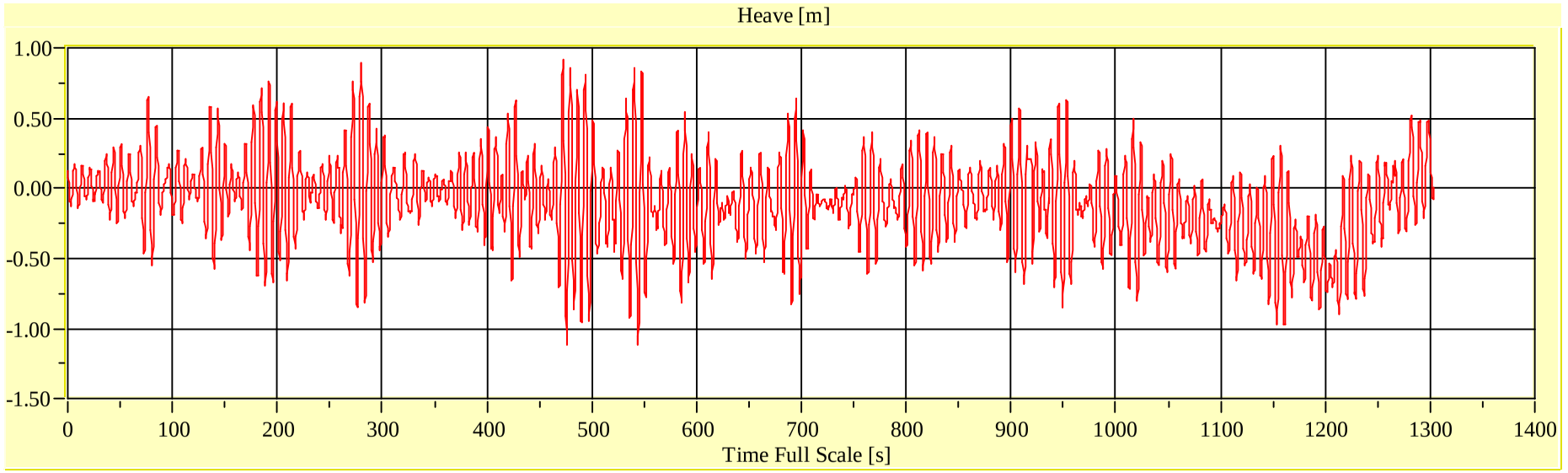


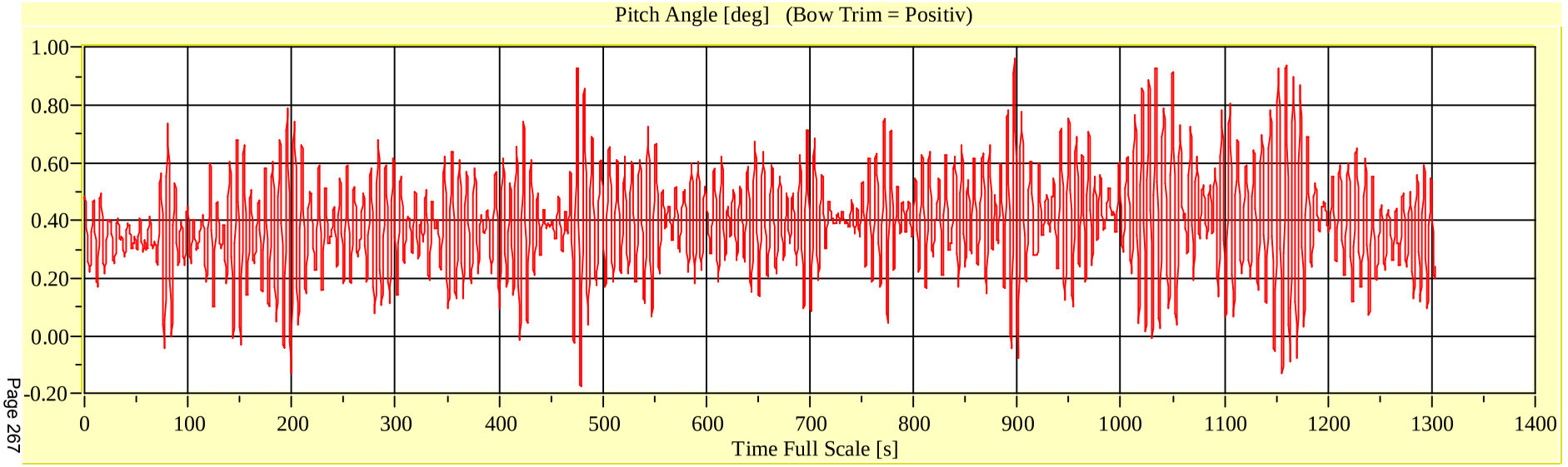


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-03	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

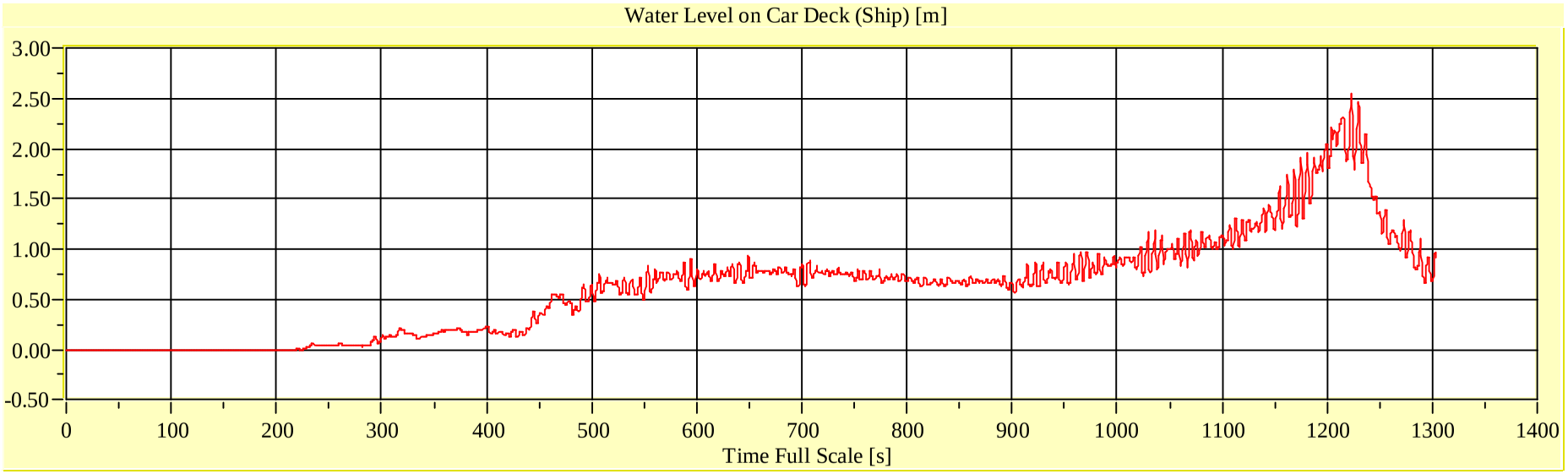


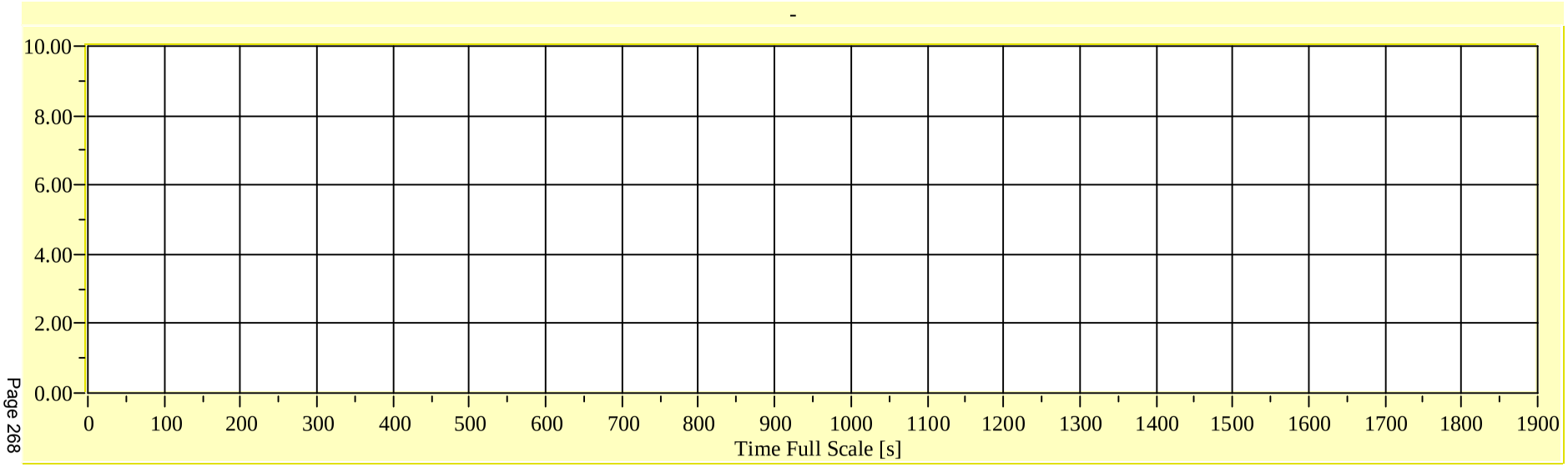


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-03	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

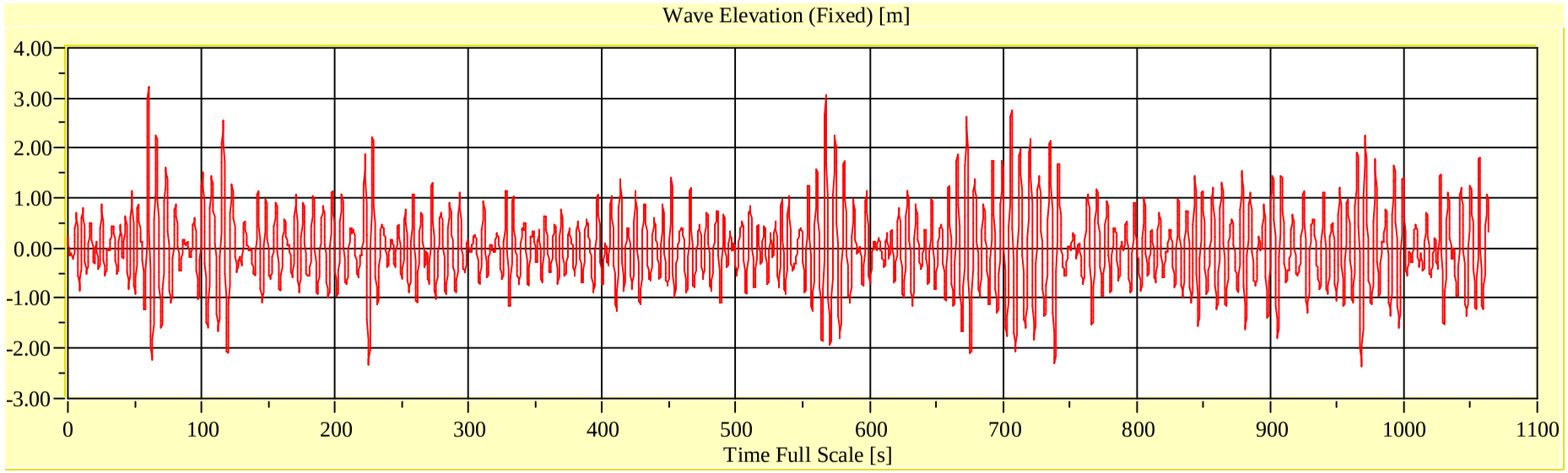


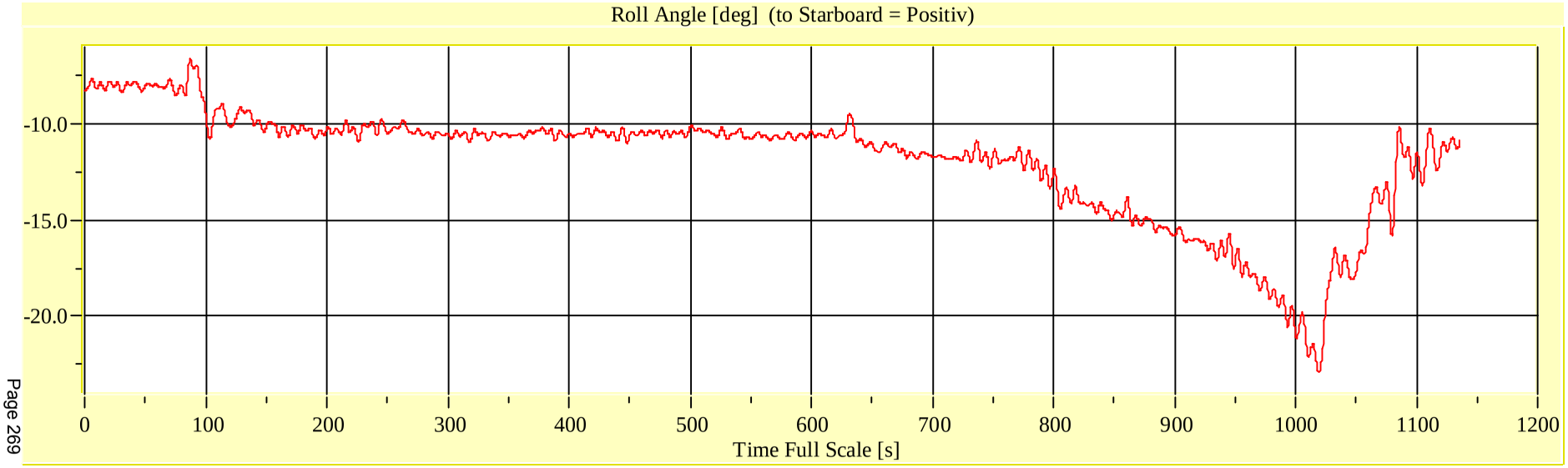


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-04	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

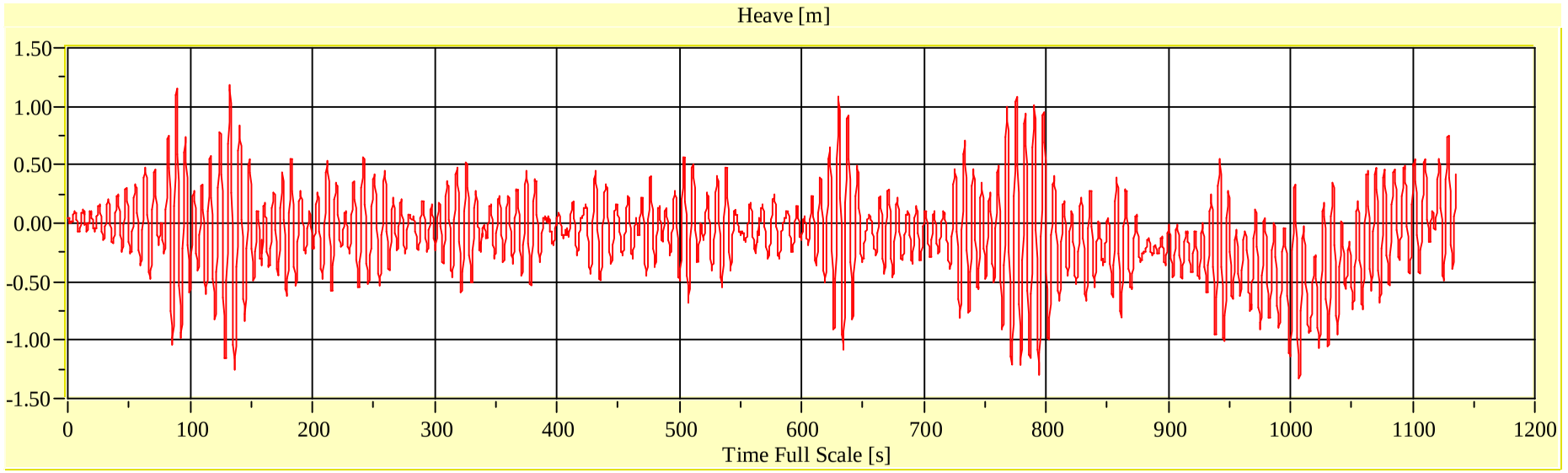


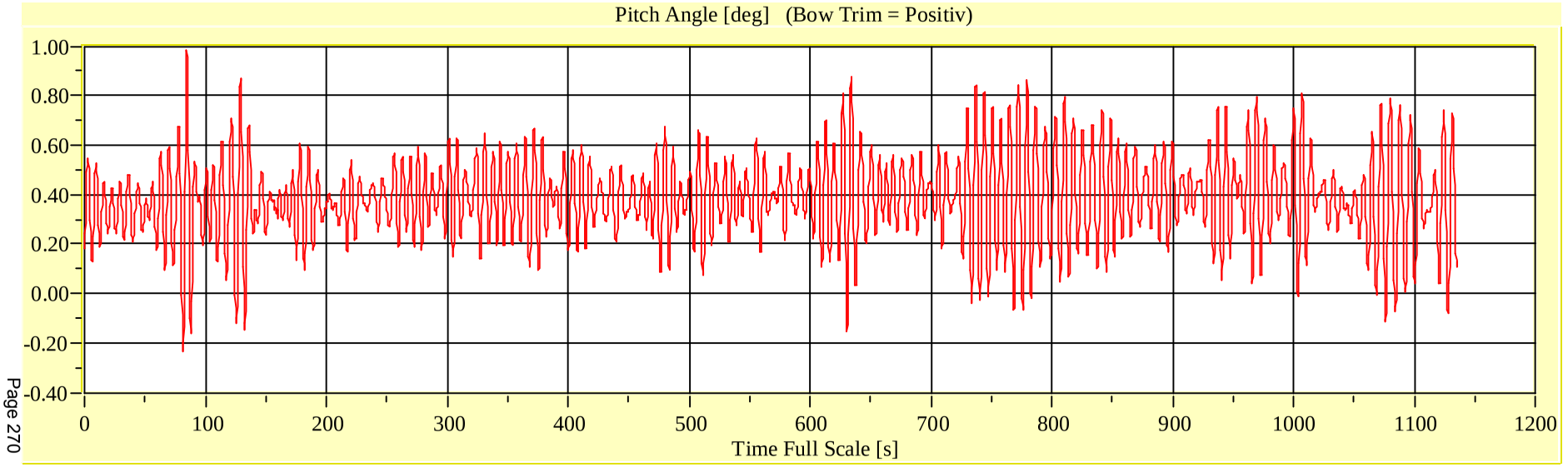


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-04	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

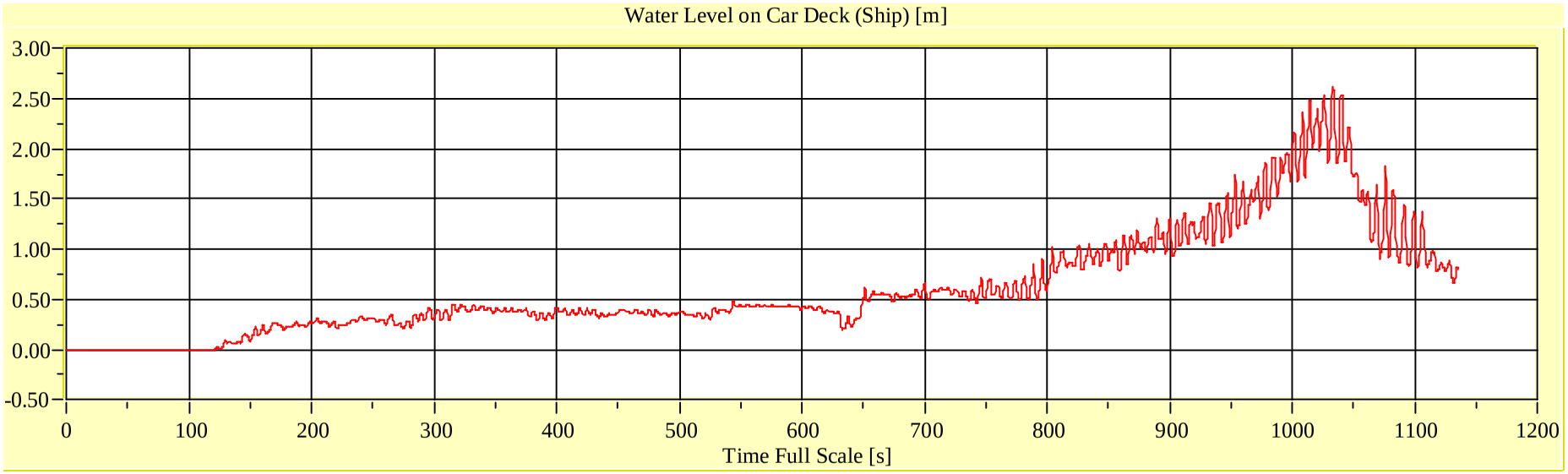


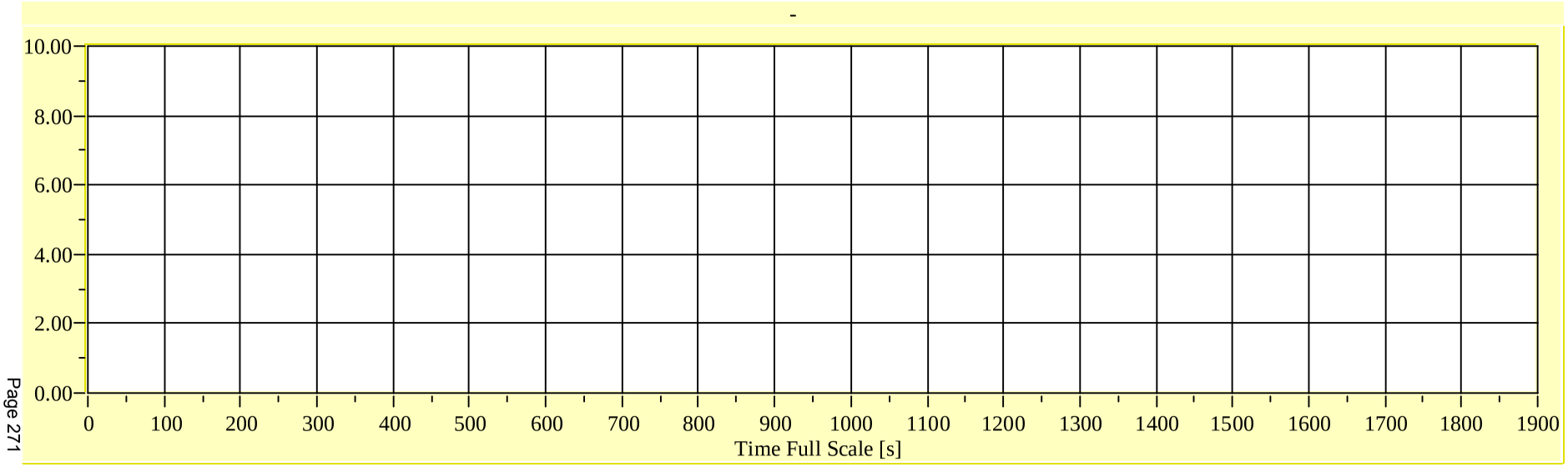


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-04	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

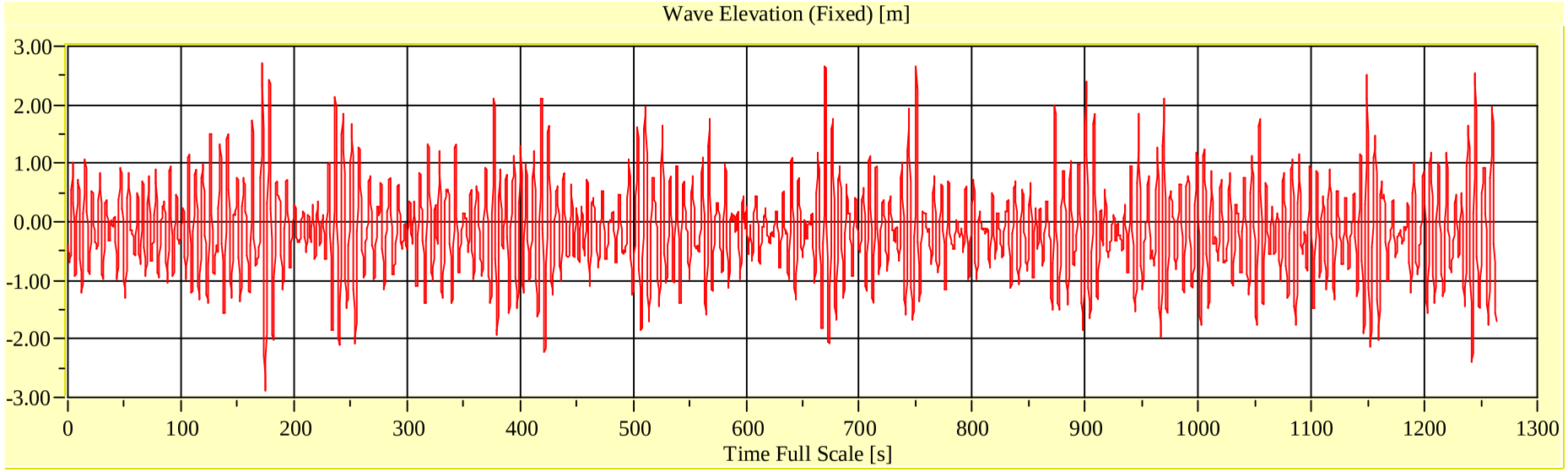


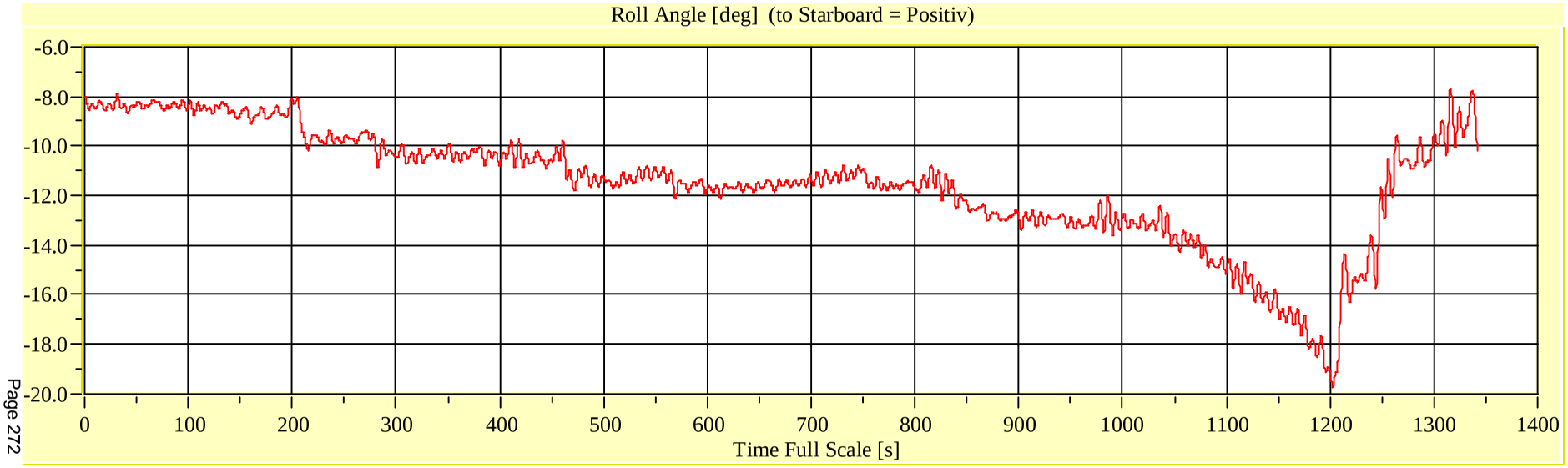


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-05	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

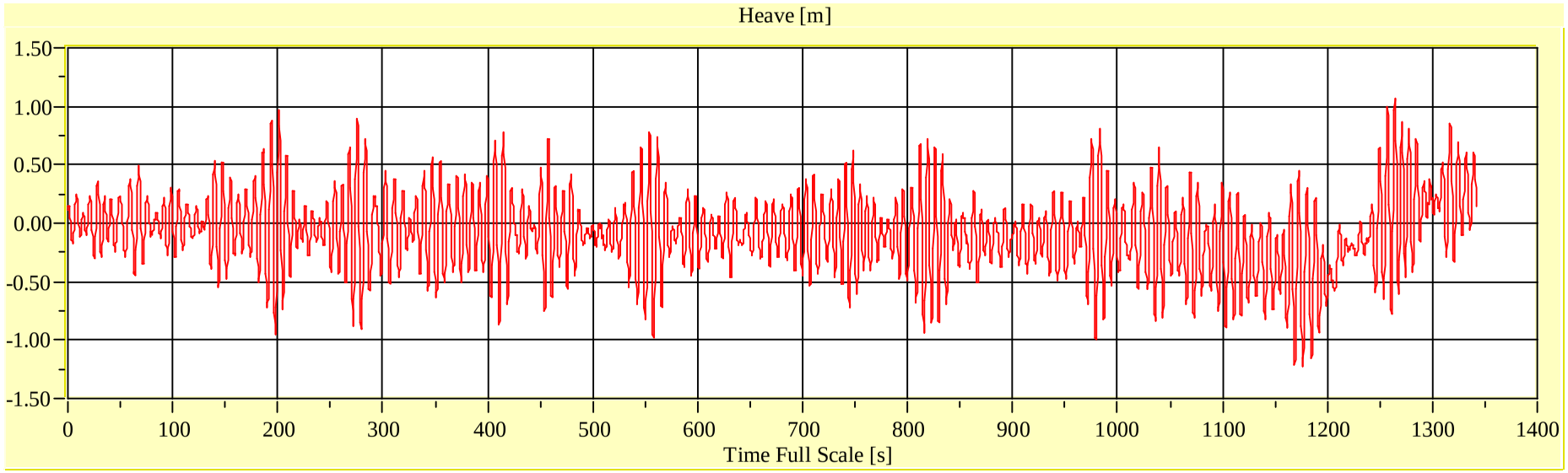


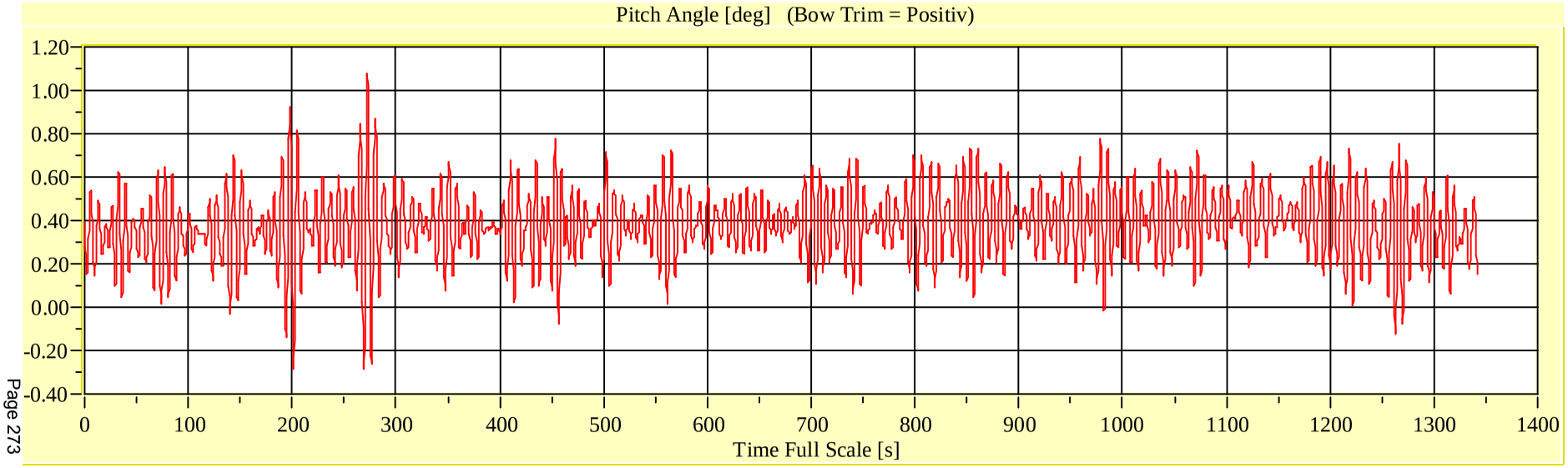


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-05	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

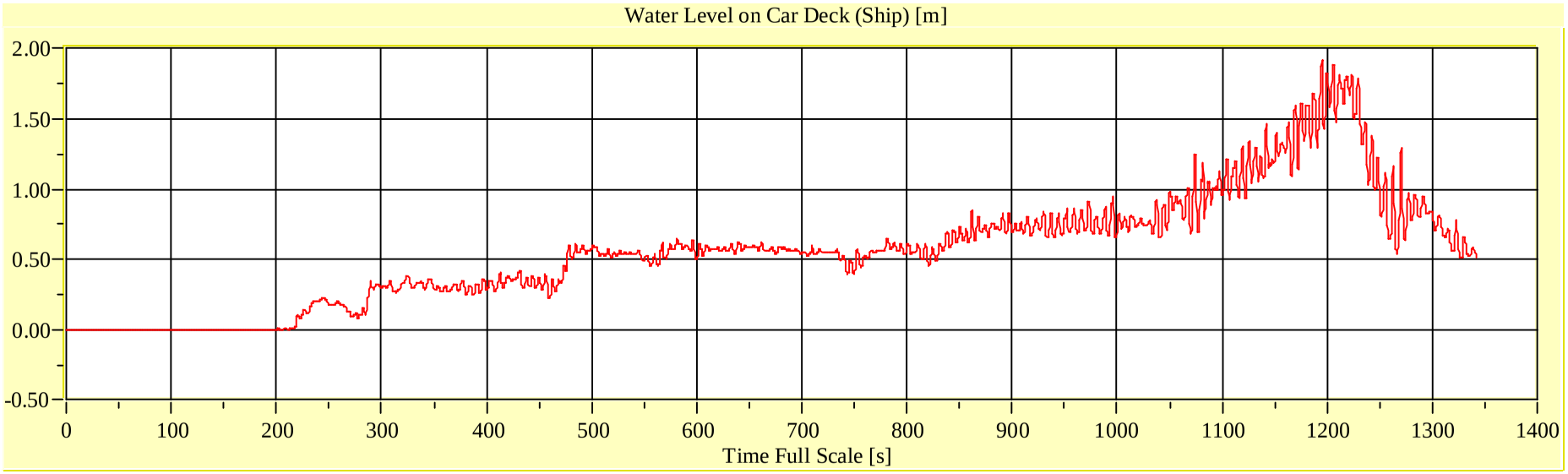


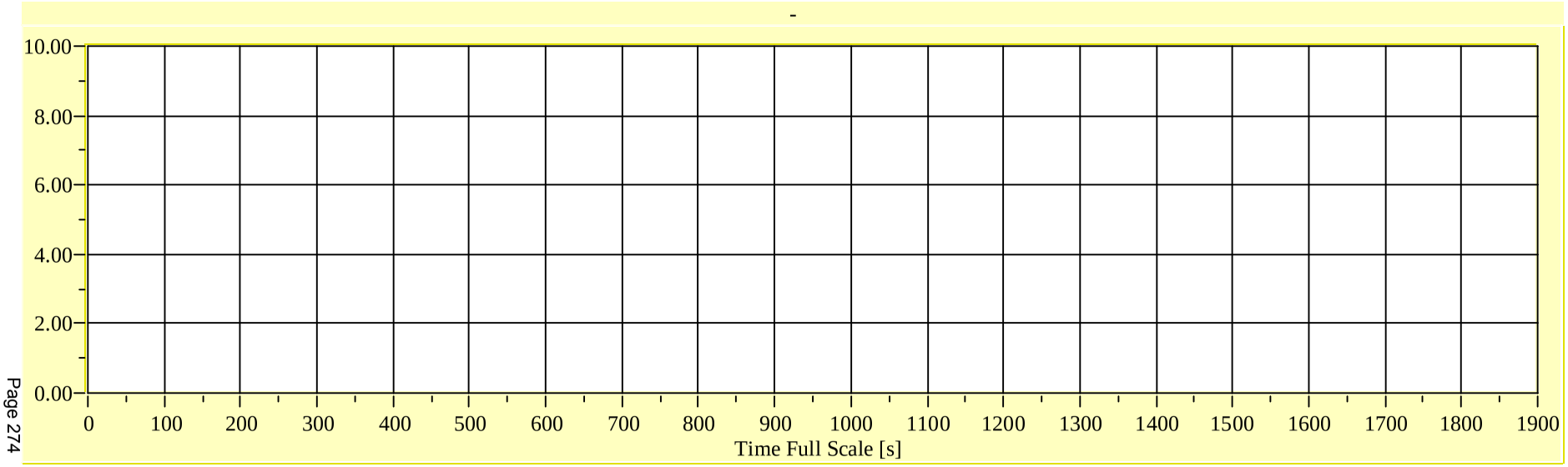


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-05	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

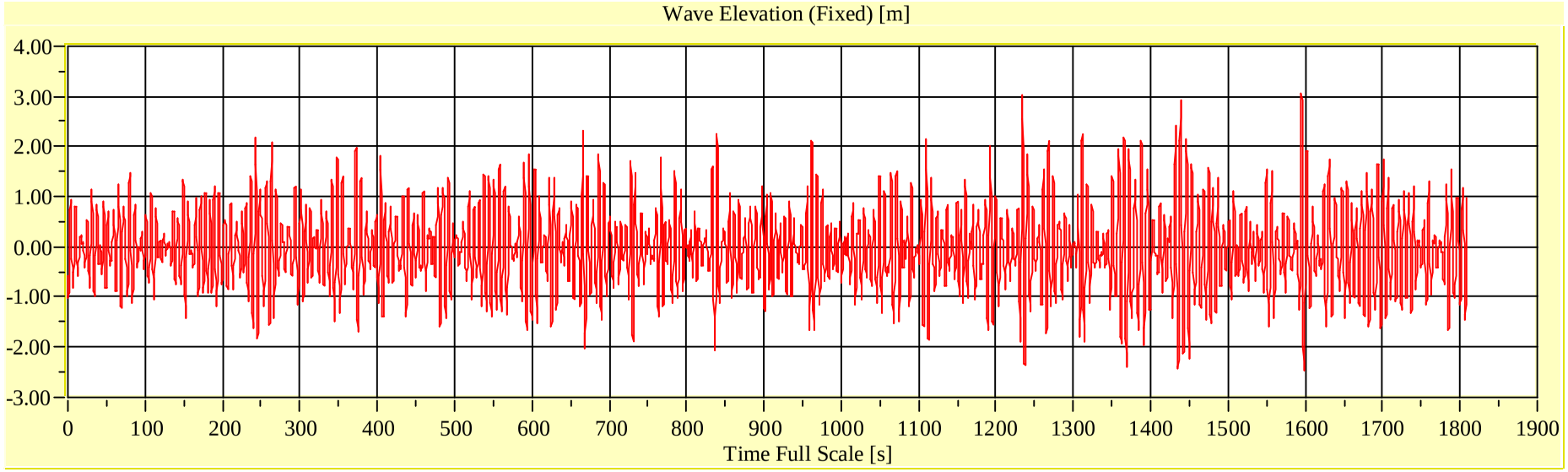


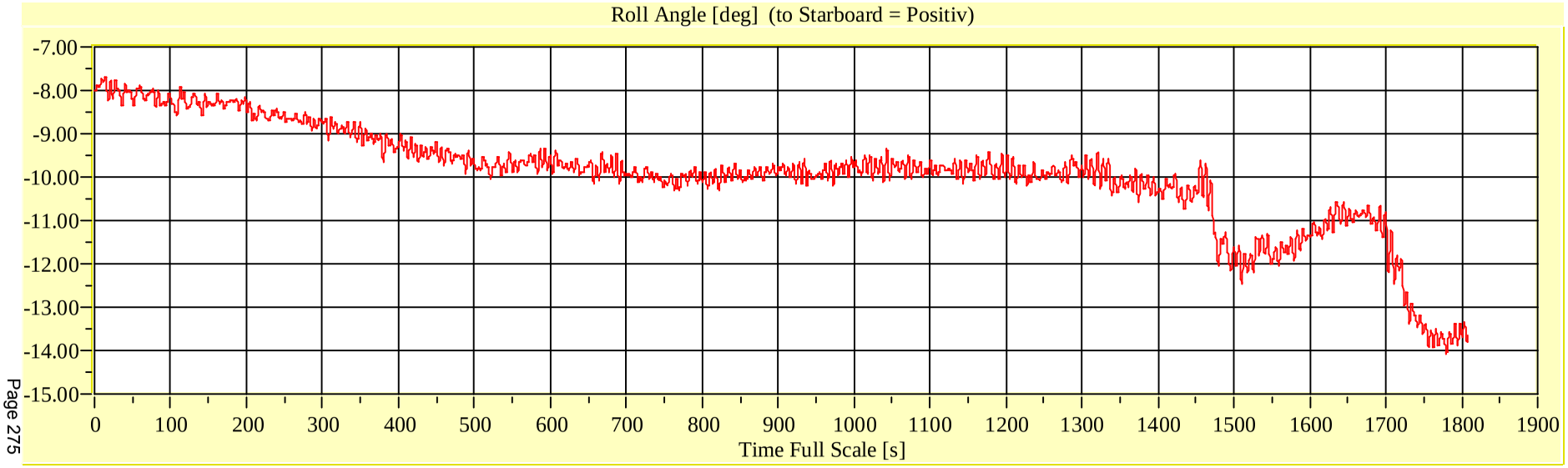


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-06	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

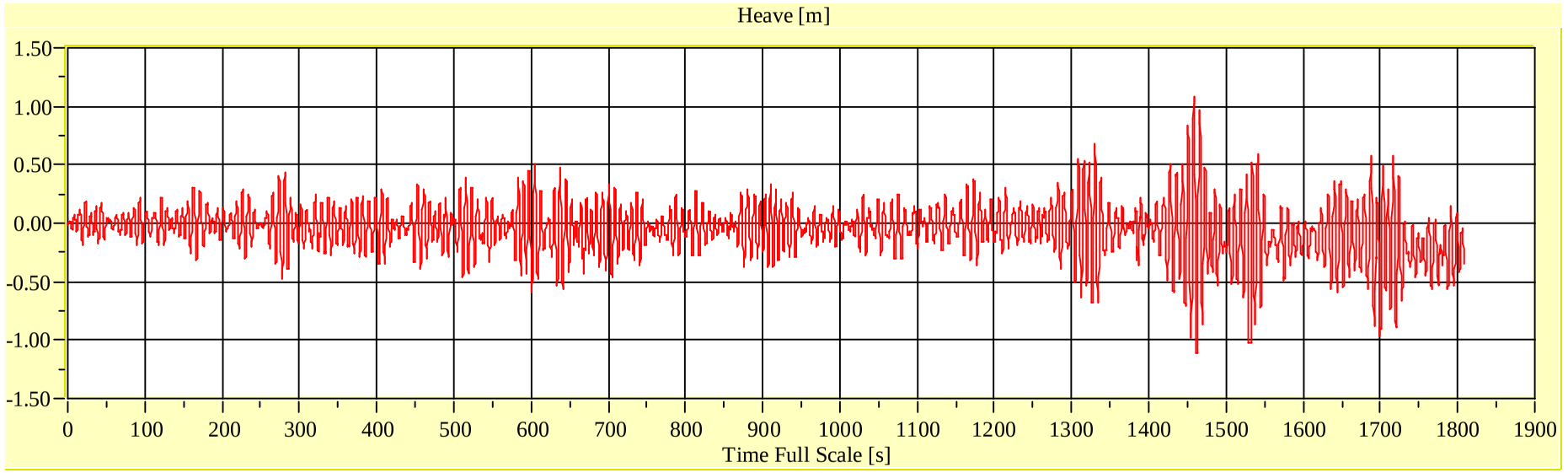


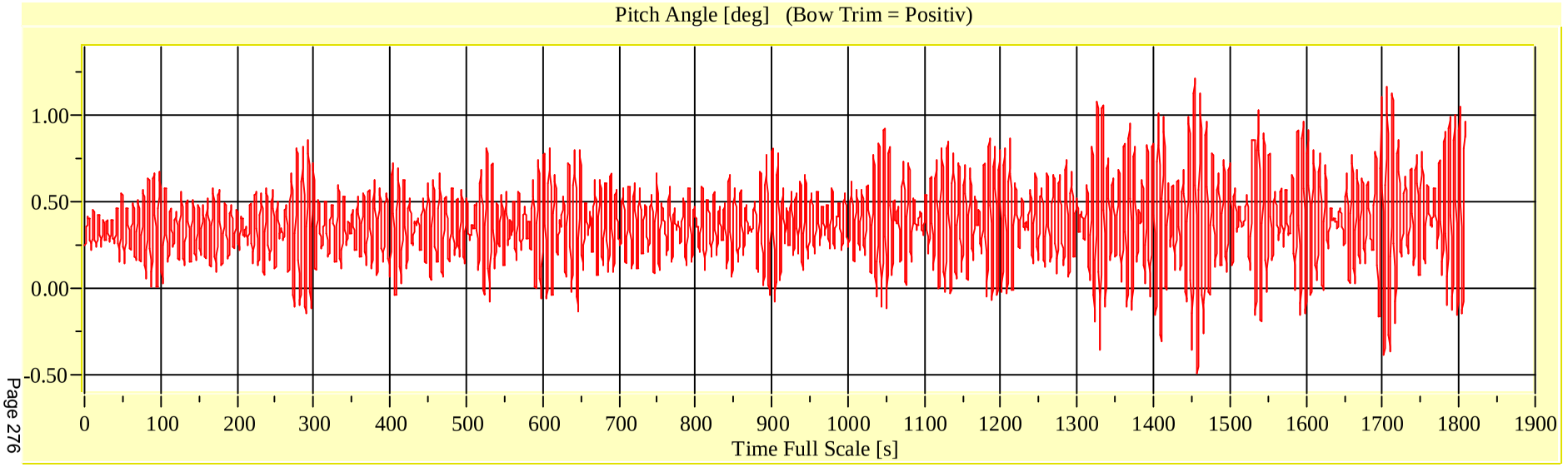


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-06	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

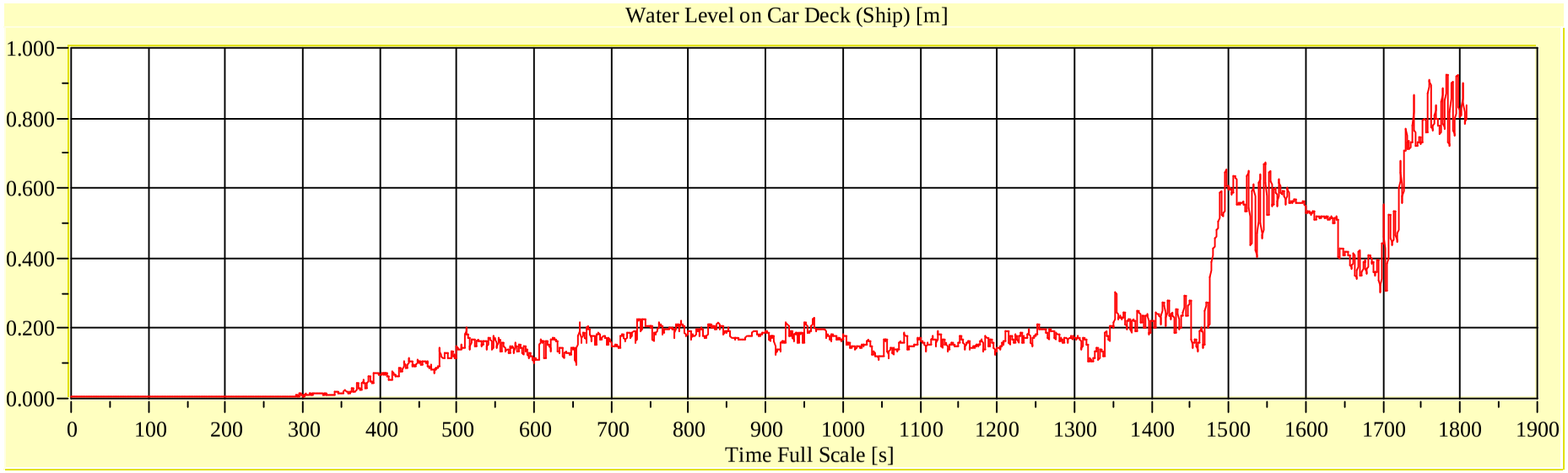




Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-06	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3



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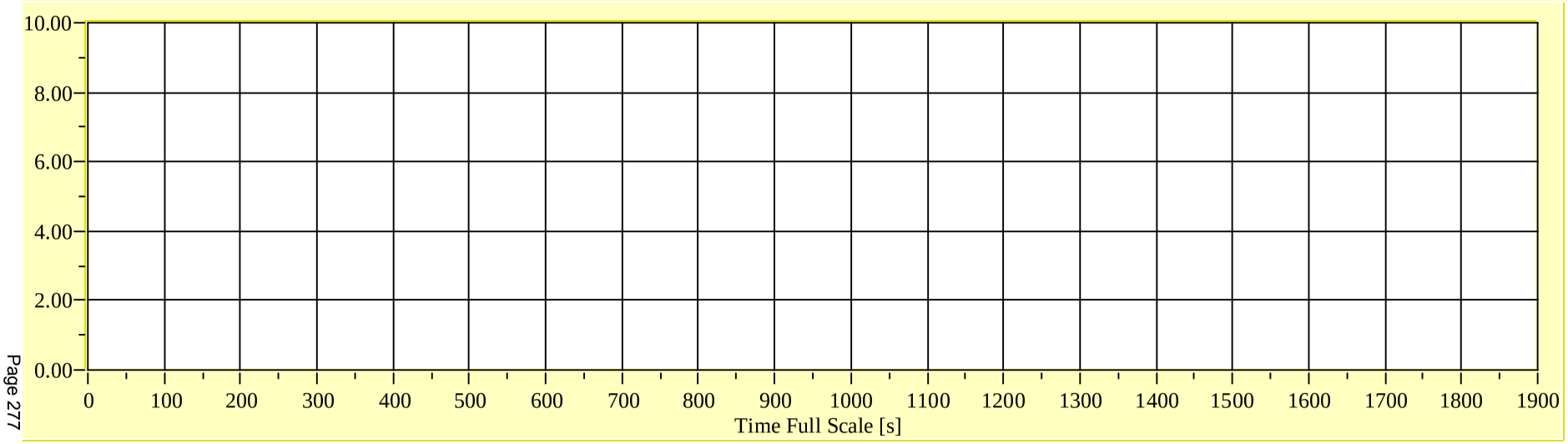
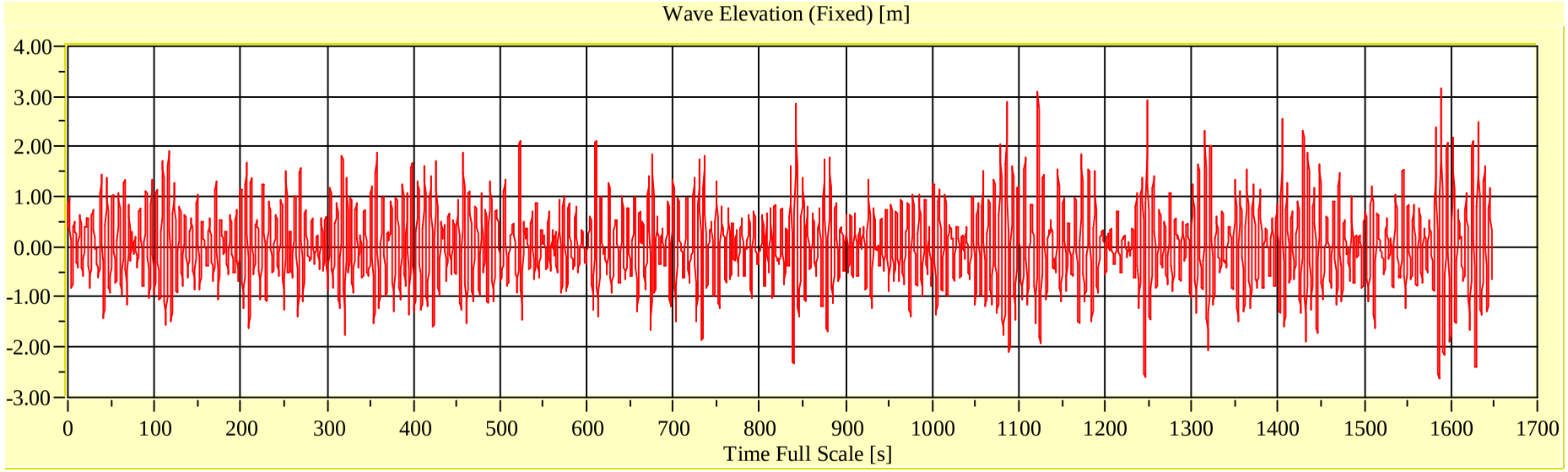
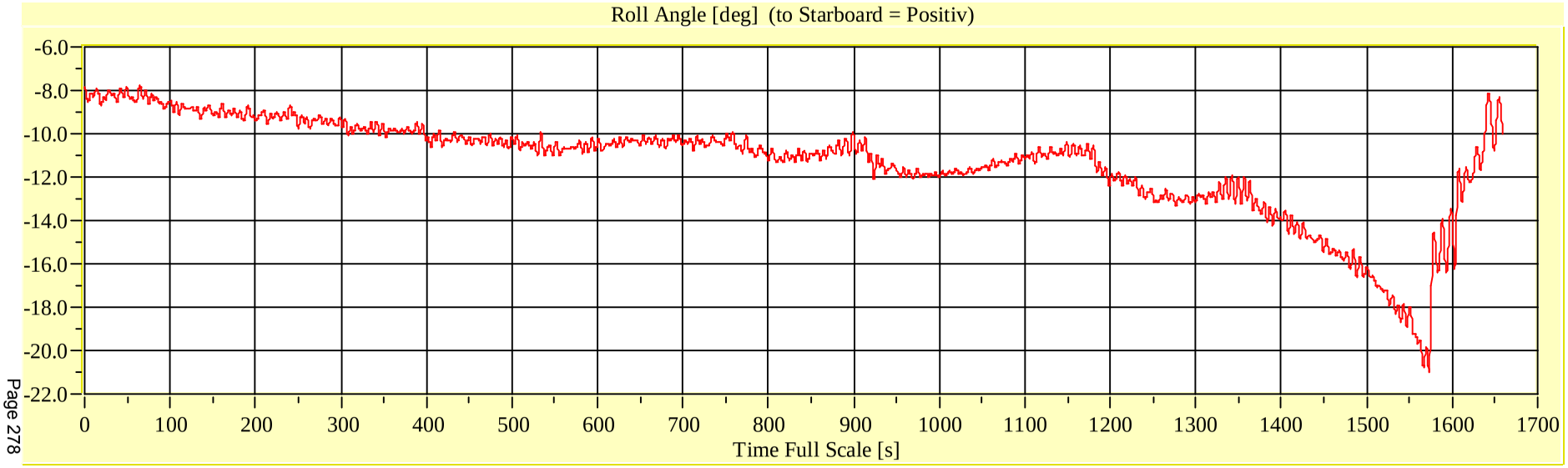


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-07	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

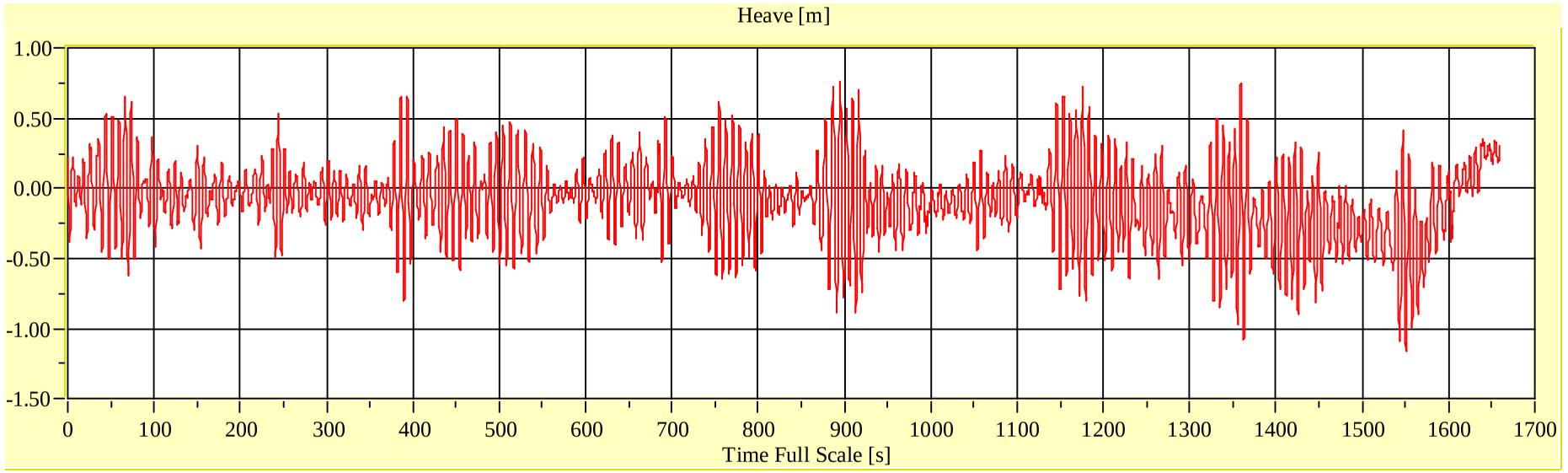


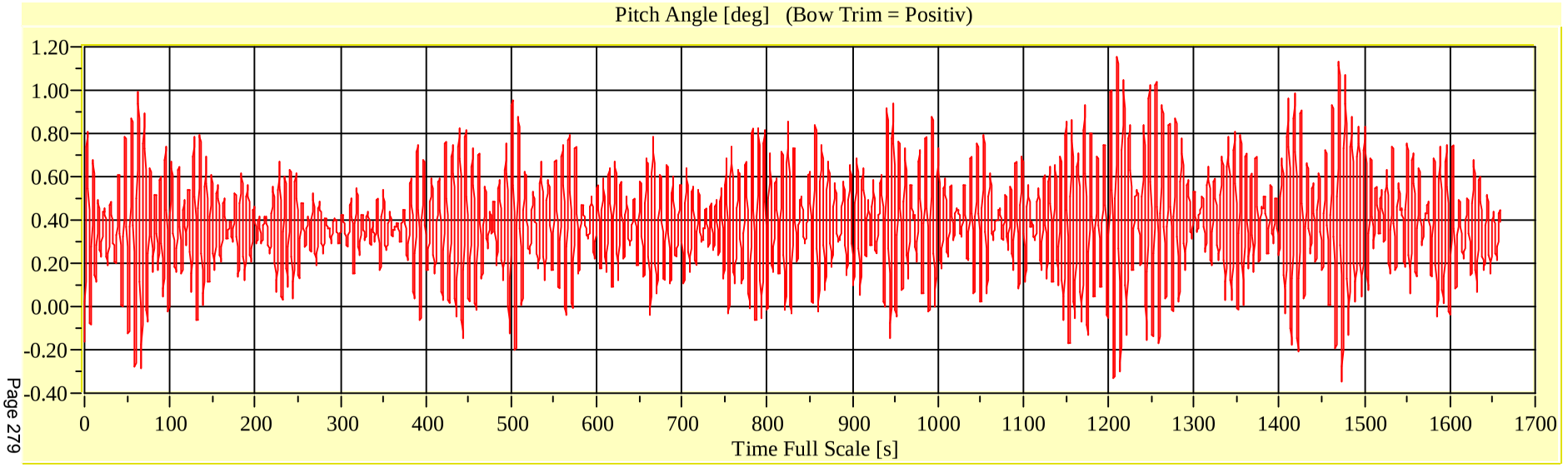


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-07	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

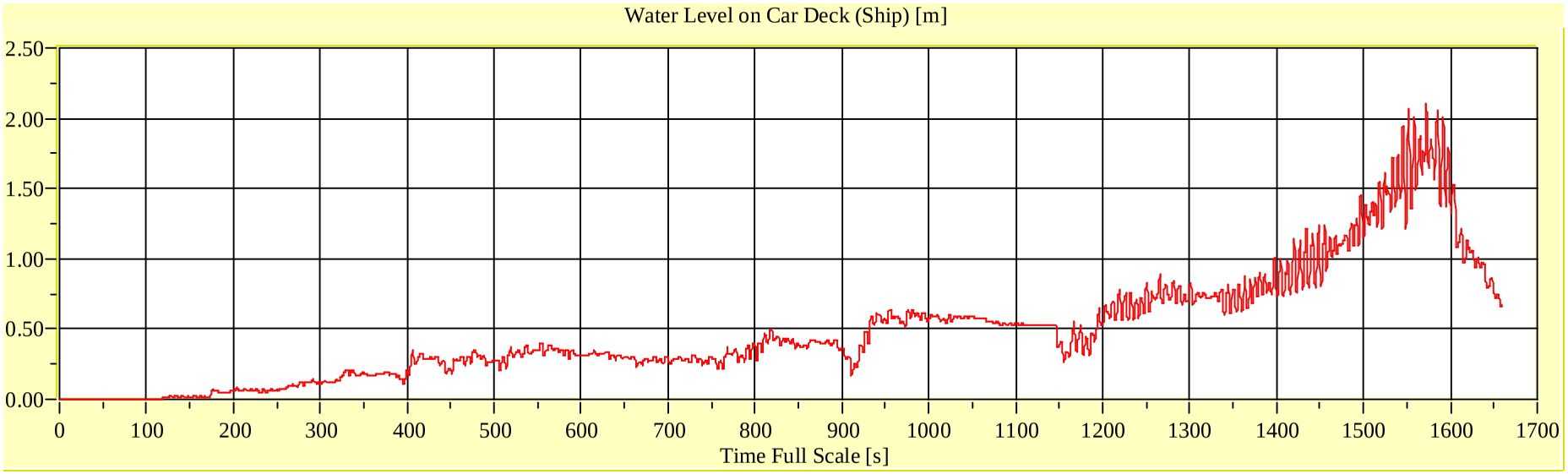




Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-07	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3



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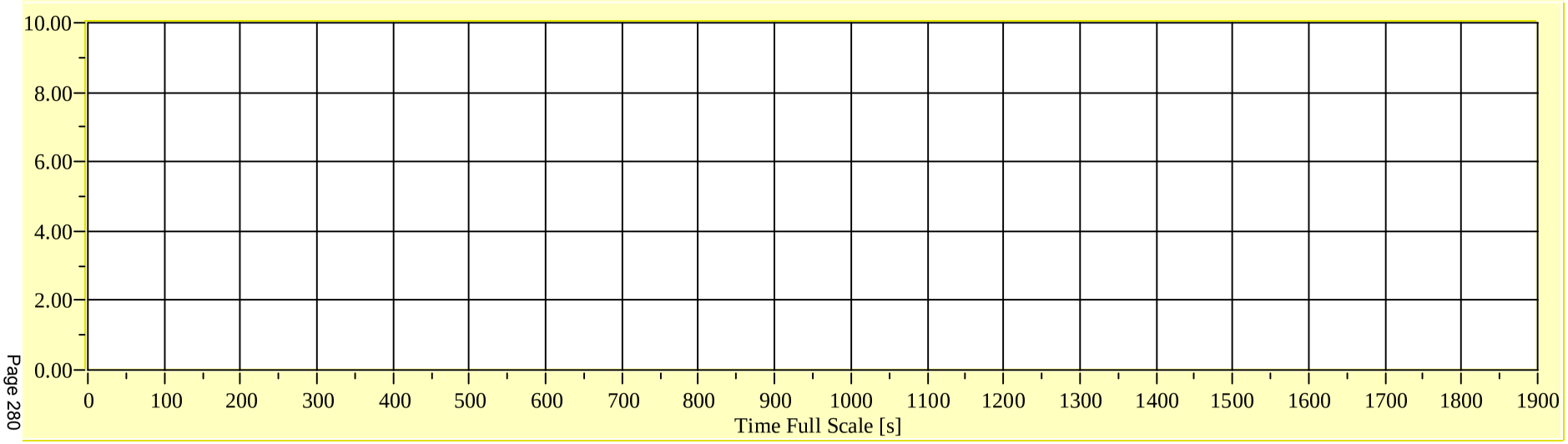
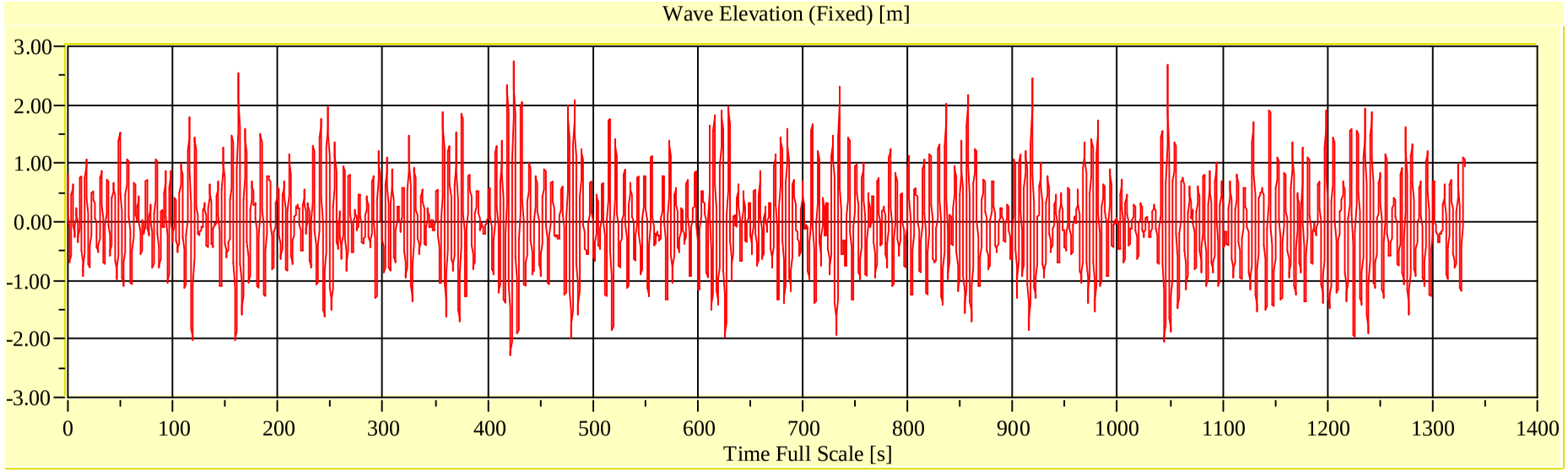
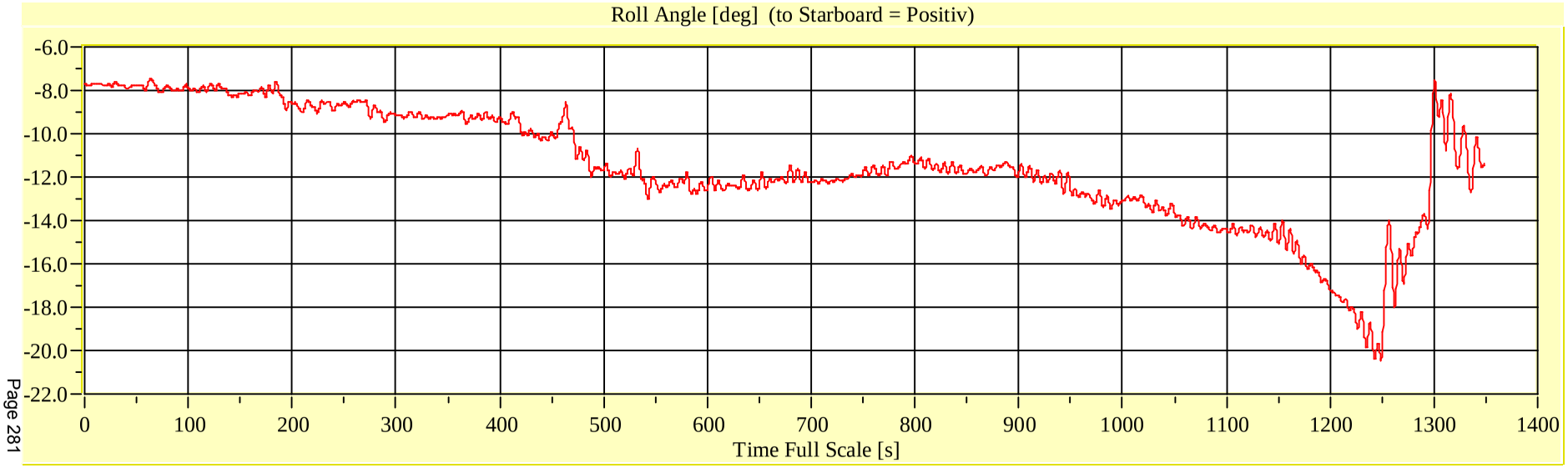


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-08	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3

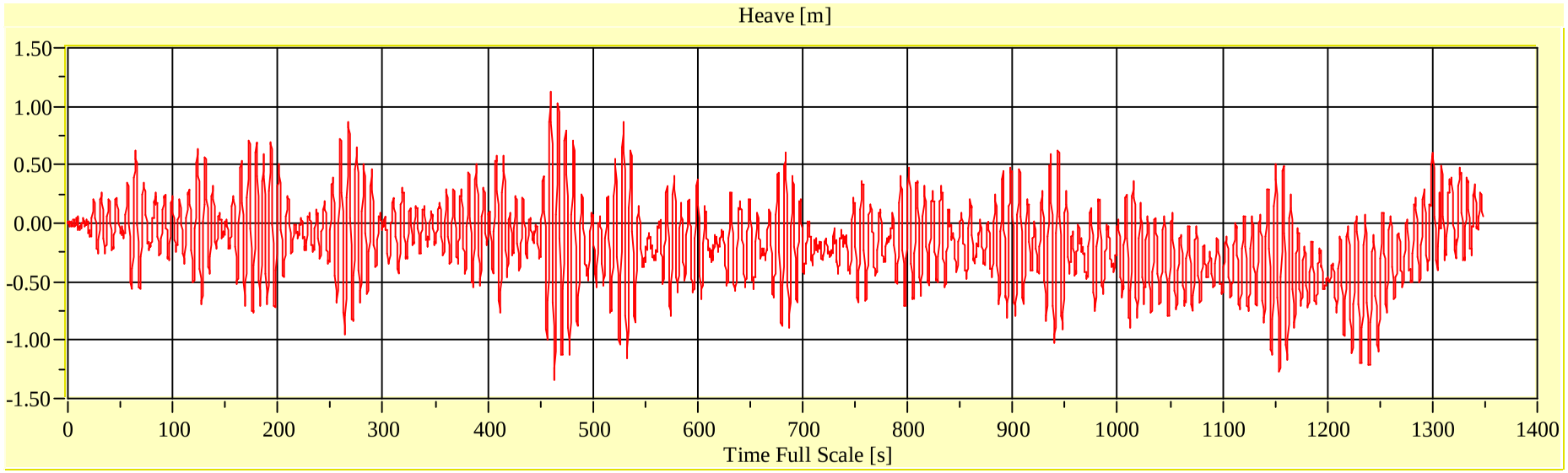


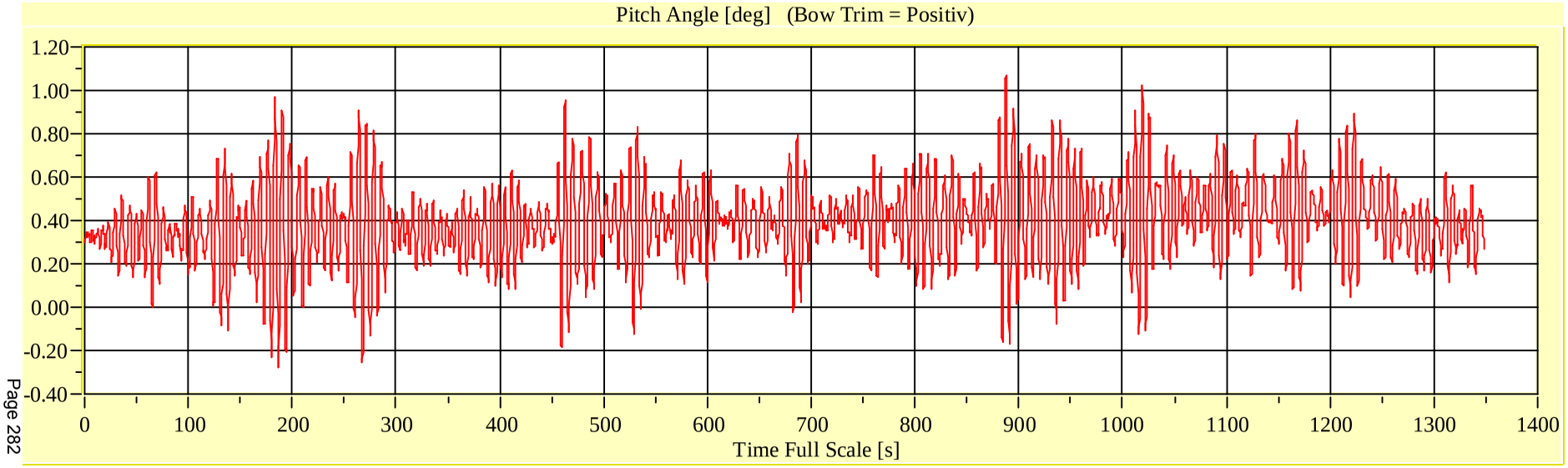


Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0

Irregular Beam Seas

Vienna Model Basin	Model No. 2461	Test No. 29738-08	Target Waves: Hs = 3,0 m Tp = 6,9282 s	gamma = 3,3





Date: 30.06.2010	Project: EMSA 3	Damage 1: R7_P8-9.3.0