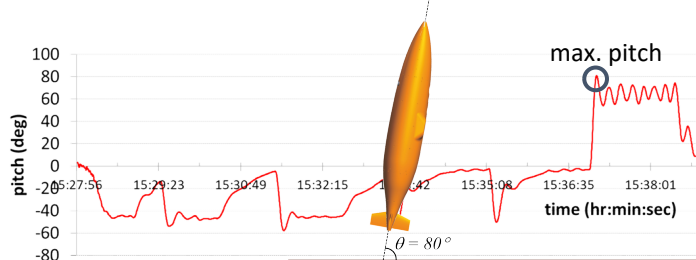


# Next-Generation Unmanned Ocean Vehicle Project Team

This project team is developing AUV (Autonomous Underwater Vehicle) and other no-manned ocean vehicle systems and researching advanced operational methods to realize comprehensive ocean security and sustainable ocean utilization. It aims to derive a highly efficient and accurate seafloor survey system that can be underwater-concluded using multiple AUVs cooperative group control in conjunction with submarine acoustic lighthouses. It is developing a deep-sea terminal for underwater charging and data transfer of AUVs to monitor the vast Japanese ocean stably over a long period. It also conducts R & D on the docking of AUVs, which is essential for operating deep-sea terminals using the latest elemental technologies. Aiming to innovatively improve labor saving, mobility, and efficiency in AUV operations, It is also conducting R & D on constructing an ocean observation and research system using no-manned aerial vehicle (AUV) operations.



NMRI AUV4 leaving for deep-sea floor survey  
[Awarded the Ship of the Year 2018 by the Japan Society of Naval Architects and Ocean Engineers in the Offshore Structures and Marine Equipment category.]



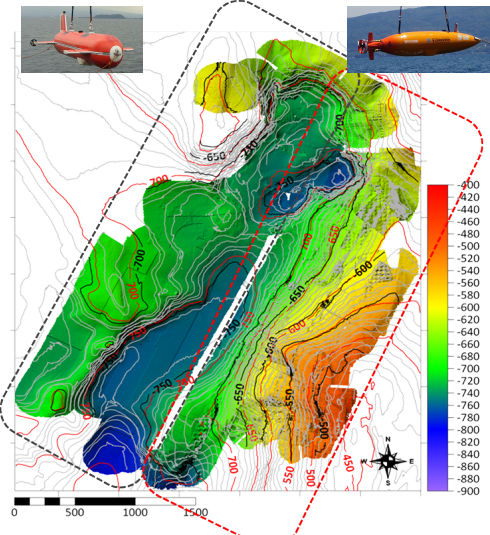
Pitch angle time series of NMRI-navigated AUV 3(4)  
with high speed and high maneuverability

NMRI半没水型洋上中継機(管制機)



NMRI航行型AUV2号機

NMRI航行型AUV4号機



Highly accurate seafloor topography in the Izu islands area, obtained by the simultaneous operation of several AUVs



Highly accurate and efficient seafloor survey (right) by simultaneous operation of four heterogeneous AUVs and one ASV (left) realized by fundamental formation control

