Long-term ocean bottom monitoring of slow earthquakes on the shallow plate interface in the Hyuga-nada region (3)

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The Hyuga-nada region, nearby the western end of the Nankai trough in Japan, is one of the most active areas of shallow slow earthquakes in the world. We have started long-term ocean-bottom monitoring of them in this area from May 2014 using three kinds of sensors: broadband seismometer with pressure gauge (BBOBSP) and short-period seismometer (LTOBS). During the first observation (March 2014 to January 2015), we already reported minor shallow tremor and very-low-frequency earthquakes (VLF) activity and very-low seismicity of ordinary earthquakes within the focal area of shallow earthquakes in the Hyuga-nada. The second observation started from January 2015 using 3 BBOBSPs and 10 LTOBSs, and all sensors were retrieved in January 2016. From the monitoring using land-based seismic observation, many shallow tremors and VLFs occurred just under the OBS network during second observation period, which started from early in May and continued approximately 2 months. We confirmed the existence of these signals in the data recorded by each OBSs. Though the detailed hypocenter determination is still being performed, the observed records strongly suggests that the shallow tremor migrated within the OBS network, which reached at off Cape Ashizuri area where shallow VLFs have been occurred every 6-7 years associated with long-term SSE at Bungo channel. This off Cape Ashizuri's activity (tremor and VLF) started at the end of May, especially increased activity after the large deep-focused earthquake at Ogasawara region (Mw7.8, 30 May 2015). In the presentation, we will introduce the preliminary result of second observation, in particular focus on the migration of shallow tremor.
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