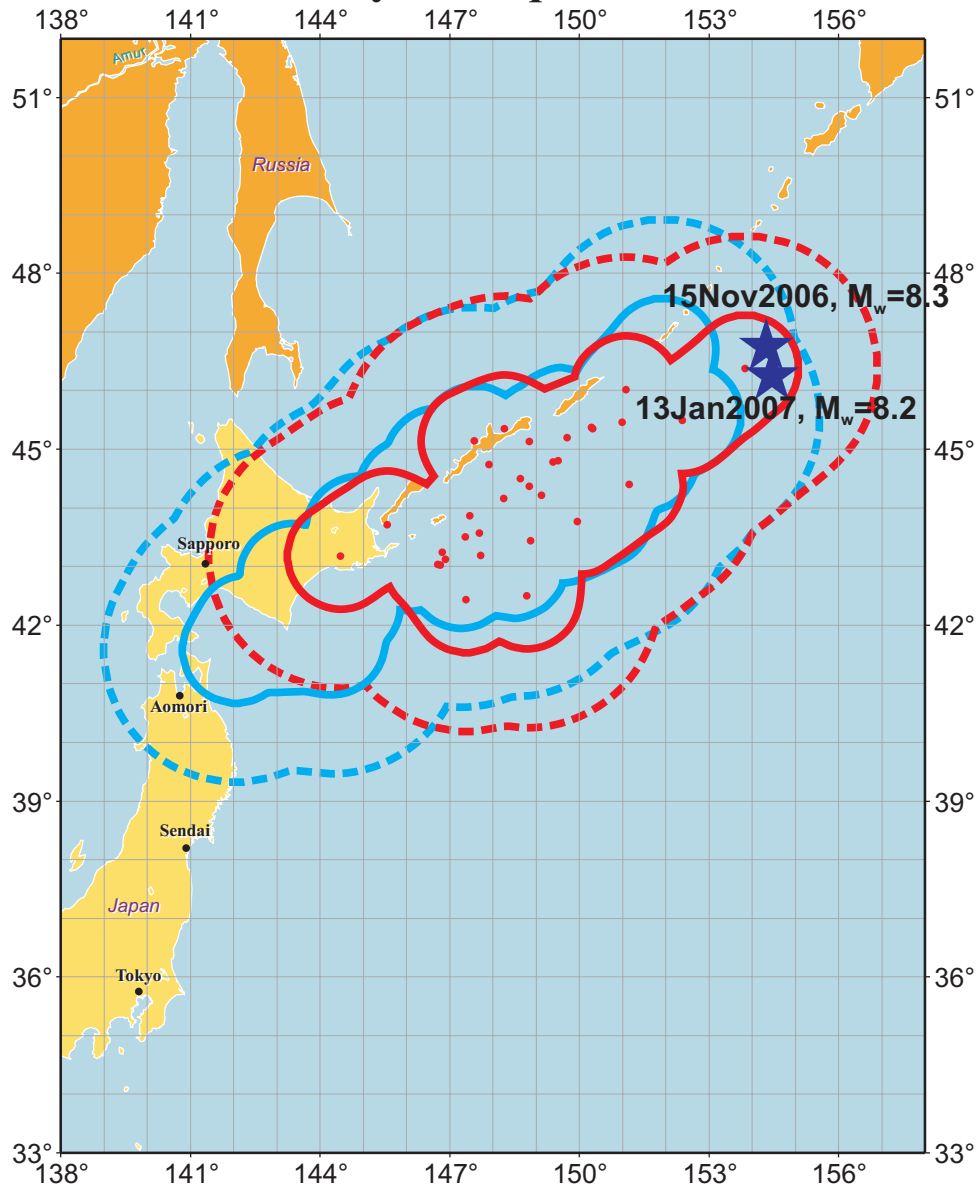


Experiment in prospective earthquake prediction using Reverse Tracing of Precursors (RTP)

Prediction #10a, October 9, 2006,
confirmed by earthquakes 15 November 2006, $M_w=8.3$, and 13 January 2007, $M_w=8.2$



Starting from October 1, 2005 we test in parallel two versions of the prediction algorithm. Test A concerns exactly the same algorithm as before. In test B we made one change: we increased by factor 2.5 the value of the numerical parameter, R, thus expanding the area of alarm.

An earthquake with magnitude $M_w \geq 7.2$ is predicted to occur within the time interval 9 months, from September 30, 2006, to June 30, 2007 in the area shown by red lines in the figure: solid line shows the area of alarm in test A, dashed line in test B.

Estimated probability that a target earthquake will occur by chance in the time-area of alarms #10 or #10a is less than 25% in test A and less than 30% in test B. Estimated probability of a false alarm does not exceed 50% in both tests.

Red circles show the earthquakes that formed precursory chain on September 30, 2006. Area of alarm for an earthquake of $M_w \geq 7.2$ is shown by red contours: solid line test A, dashed line test B. This alarm extends previously issued prediction #10. Similar notations in blue correspond to that prediction. Blue stars show the epicenters of the Simushir earthquake, 15 November 2006, $M_w=8.3$ and of the subsequent large quake, 13 January 2007, $M_w=8.2$