

## ABSTRACT

Indonesian government, with the help of donor countries, has developed a Tsunami Early Warning System Indonesia (Indonesian Tsunami Early Warning System - InaTEWS). The system is centered on the Meteorology, Climatology, and Geophysics (BMKG) in Jakarta. This system allows BMKG sending a tsunami warning if an earthquake that could potentially cause a tsunami. The current system is being refined. Development of a Tsunami Early Warning System involves many parties, both central government agencies, local governments, international agencies, non-governmental organizations. Indonesia is the coordinator of the Ministry of Research and Technology (Research and Technology). Meanwhile, the designated agency and is responsible for issuing tsunami warnings and earthquake information is BMKG (the Meteorology, Climatology and Geophysics). This system is designed to be able to issue a tsunami warning within a period of 5 minutes after the earthquake occurred.

InaTEWS high-tech and very expensive to run well it is necessary to build the infrastructure that supports early warning tsunami-prone region, effective information delivery and efisisen, need good coordination between the competent institution and education about the importance of early warning systems.

Results without coding error probability calculations yield  $6.10^{-22}$  numbers, this suggests that any amount of data transfer will have  $10^{-22}$  as 6-bit errors and shows that the communication system has good reliability. In terms of the probability of a collision (collision) with the number one buoy unit will generate a collision intensity of 1.6%.

Keywords:

Indonesian tsunami early warning system, 5 (five) minutes, probability error