SIMS’s expectations of new-generation satellites for hazard monitoring
SIMS’s top three hazards that can be monitored by satellite

HAZARD 1: TROPICAL CYCLONE

- **TC RAQUEL (1st July 2015)** – deaths stands at a total of eight (8) people
- 164 damage houses, 34 totally destroyed,
- Total of 1,047 communities affected, total population of 126,187 were affected.
HAZARD 2: TORRENTIAL RAIN

- After torrential rain on 2nd and 3rd of April 2014, severe flash flood affected the Solomon Islands, especially the capital Honiara and it left 22 people dead.
- 1,100 homes severely damaged with 260 totally destroyed. Left around 10,092 people homeless.
HAZARD 3: MONSOON ACTIVITY

- Flooding on low lying areas caused by heavy rain due to presence of a monsoon trough (26th February, 2013). Damage to homes, infrastructures and aviation hazards (cancellation of flights)
### SIMS’s expectations of new series of satellites for hazard monitoring

<table>
<thead>
<tr>
<th>Hazard 1: tropical cyclones</th>
<th>Multi-spectral bands: New signals derived from multi-spectral-band observations will support issuance of more effective warnings.</th>
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</table>
| Hazard 2: Torrential rain   | **Multi spectral bands:** New signals derived from multi-spectral band observation before extremely heavy rainfall are expected to be useful.  
**High spatial resolution:** These high resolution visible and infrared bands will help clarify atmospheric structure, hence we are able to identify areas of expected heavy rainfall. |
SIMS’s expectations of new series of satellites for hazard monitoring

| Hazard 3: Monsoon activity | **Rapid scanning:**
Data from rapid scanning observation will enable early detection of rapid cloud formations and or convections.

**High spatial resolution:**
These high resolution visible and infrared bands will help clarify atmospheric structure, hence we are able to identify areas of expected heavy rainfall. |
SIMS’s requirements to get desired benefits from the new generation of satellites

<table>
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<tr>
<th>Major hazard</th>
<th>Features of new generation GEO met. satellite</th>
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| Hazard 1: tropical cyclones   | **Training in imagery analysis:**  
- Training would support the retrieval of new signals from multi-spectral band observation.  
- Help forecasters to understand the different bands and identify features. |
| Hazard 2: Torrential rain     | **Easy-to-understand product:**  
- Using a product made with multi-spectral band data that indicates new signals prior to extremely heavy rain.  
- Saves time and energy during severe weather events  
**Training in imagery analysis:** |
| Hazard 3: Monsoon activity    | **Easy-to-understand product:**  
- Same as above  
**Training in imagery analysis:**  
- Same as above |
SIMS’s plans/expectations for utilization of new-generation geostationary meteorological satellite data

- Develop individual satellite sector over Solomon Islands domain (more higher resolution) since some of our islands are very small.
- Develop and integrate satellite data with other weather models and observations with overlaying capabilities (one stop shop)

- Improve Internet access and or other means of receiving satellite data without internet

- Satellite Training and education
Thank iu tumas