Ministry of Communication and Information Technology

Toward The Indonesian Information Society

Satellite Regulatory and Usage in Indonesia

ITU/MIC International Satellite Symposium 2015
30 September- 1 October 2015
Danang City, Vietnam

Directorate General of Resource Management and Equipment Standard of Post and Information Technology

Background

The largest archipelago country : 13,466 islands (already have coordinates and registered) source: Geospasial Information Indonesia (BIG) May 2014

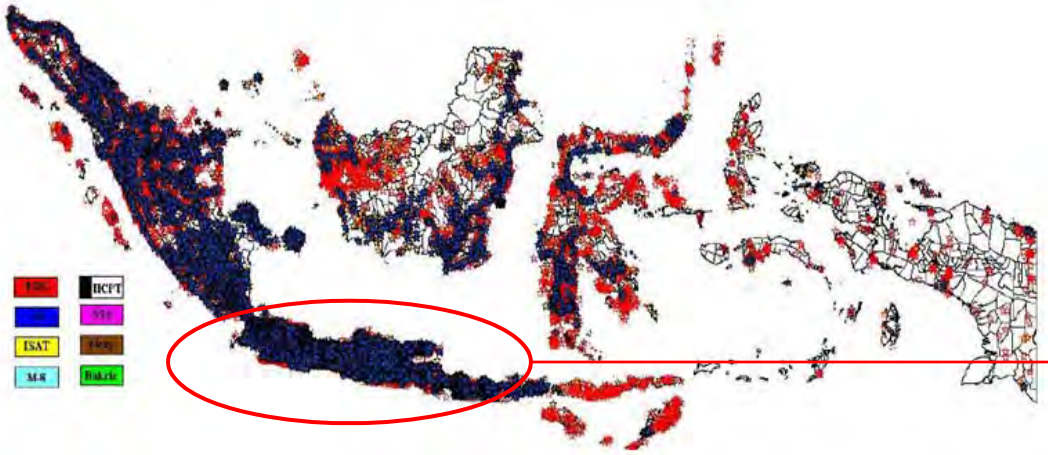
total land area: **1,919,440 km2 (***land:* **1,826,440 km2,** *inland water:* **93,000 km2) source: statistics Indonesia (BPS) May 2014**

The Role of Satellite In Indonesia (1/2)

BACKBONE NETWORK IN INDONESIA

No access and terestrial backbone

ACCESS NETWORK (CELLULAR) IN INDONESIA



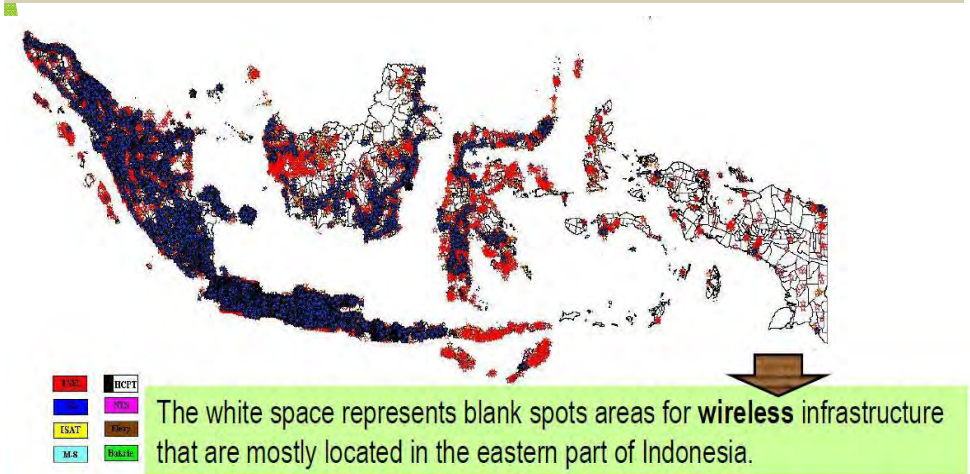
Still needed

The Role of Satellite In Indonesia (2/2)

Backbone Network : Fiber Optic

- Lack of terrestrial backbone network in Eastern Part of Indonesia due to geographical condition
- Terrestrial Access Network has not covered entire Indonesian teritory
- Blank spot area only served by satellite infrastructure

Access Network : Cellular network

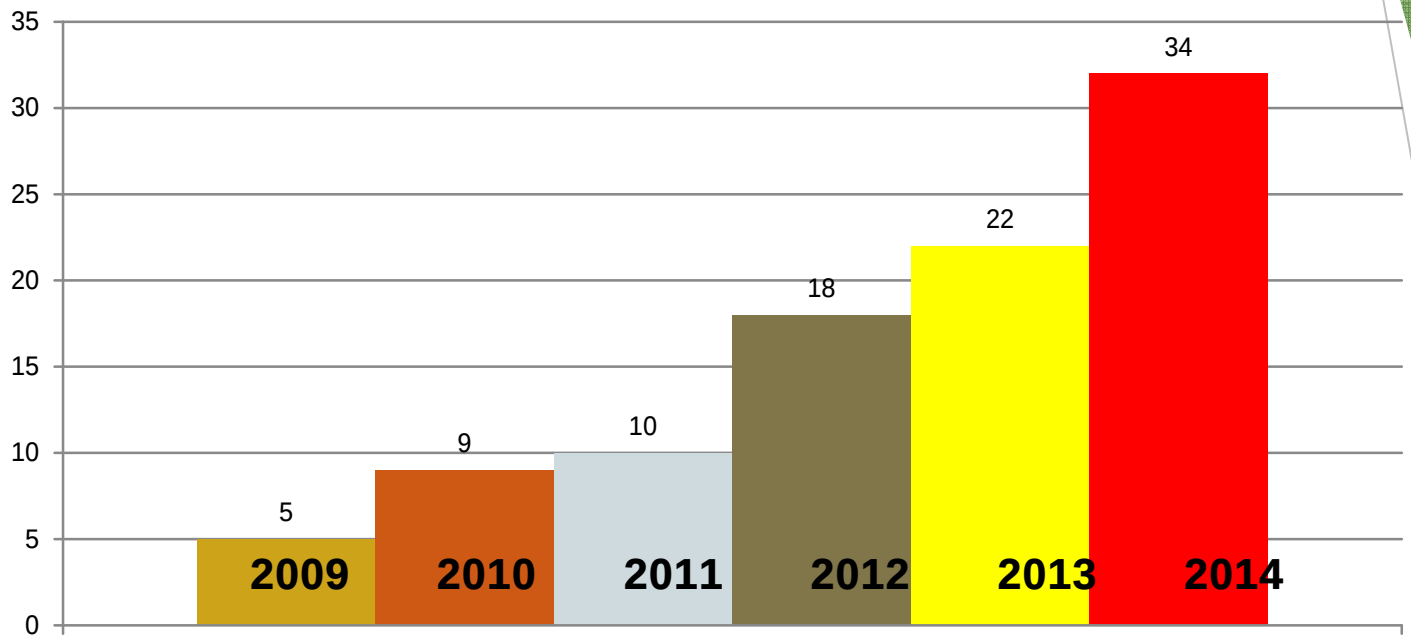


- **Satellite plays an important role in connecting Indonesia and serving the unserved areas**
- **Indonesia is highly dependent on satellite**

Overview: Satellite Industry in Indonesia

- Indonesia satelit operator: 119 txp C and 5 txp Ku
- Not enough supply from National Satellite Operator
- From 2009-2016 : No added capacity from National Operator
- To fulfill demands, foreign satellites can provide service in Indonesia through national telco and broadcasting operators
- Threre are 34 foreign satellites provide service in Indonesia

Number of Foreign Satellites Providing Service in Indonesia



- **Foreign satellite providing service in Indonesia continue to increase over time.**
- **Indonesia is performing survey and study on obtaining real data on actual number of satellite supplied capacity, what are the capacity is for, and to asses the trend of the satellite usage in Indonesia.**
- **Plan to evaluate for Foreign Satellites.**

Challenge for Satellite Regulatory

WRC15 - Agenda Item 7:

Satellite Regulatory Issue

7 to consider possible changes, and other options, in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference, an advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in accordance with Resolution 86 (Rev.WRC-07) to facilitate rational, efficient, and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit;

Resolution **86** (**Rev.WRC-07**): *Implementation of Resolution 86 (Rev. Marrakesh,*

ISSUE K: addition of a regulatory provision for the case of launch failure in article 11

Indonesian Proposal for New Issue on Agenda Item 7 at CPM 15-2 Meeting

Background:

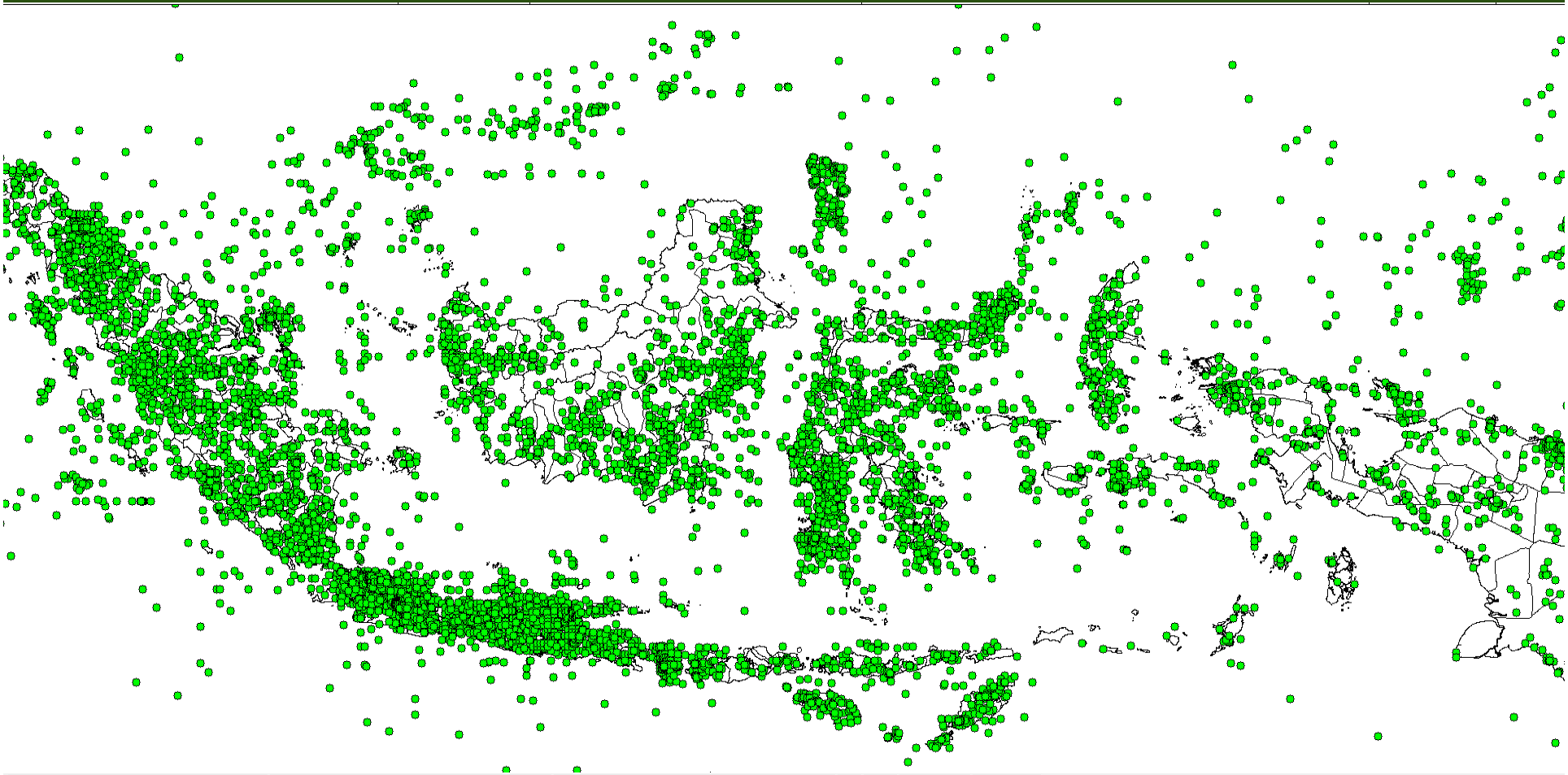
Indonesian operator had experience on launch failure

No regulation for launch failure

Strategy for WRC-15

- Cooperate together with administrations and satellite operators around the world in WRC-15
- Could be a Joint Proposal of Agenda Item WRC-15

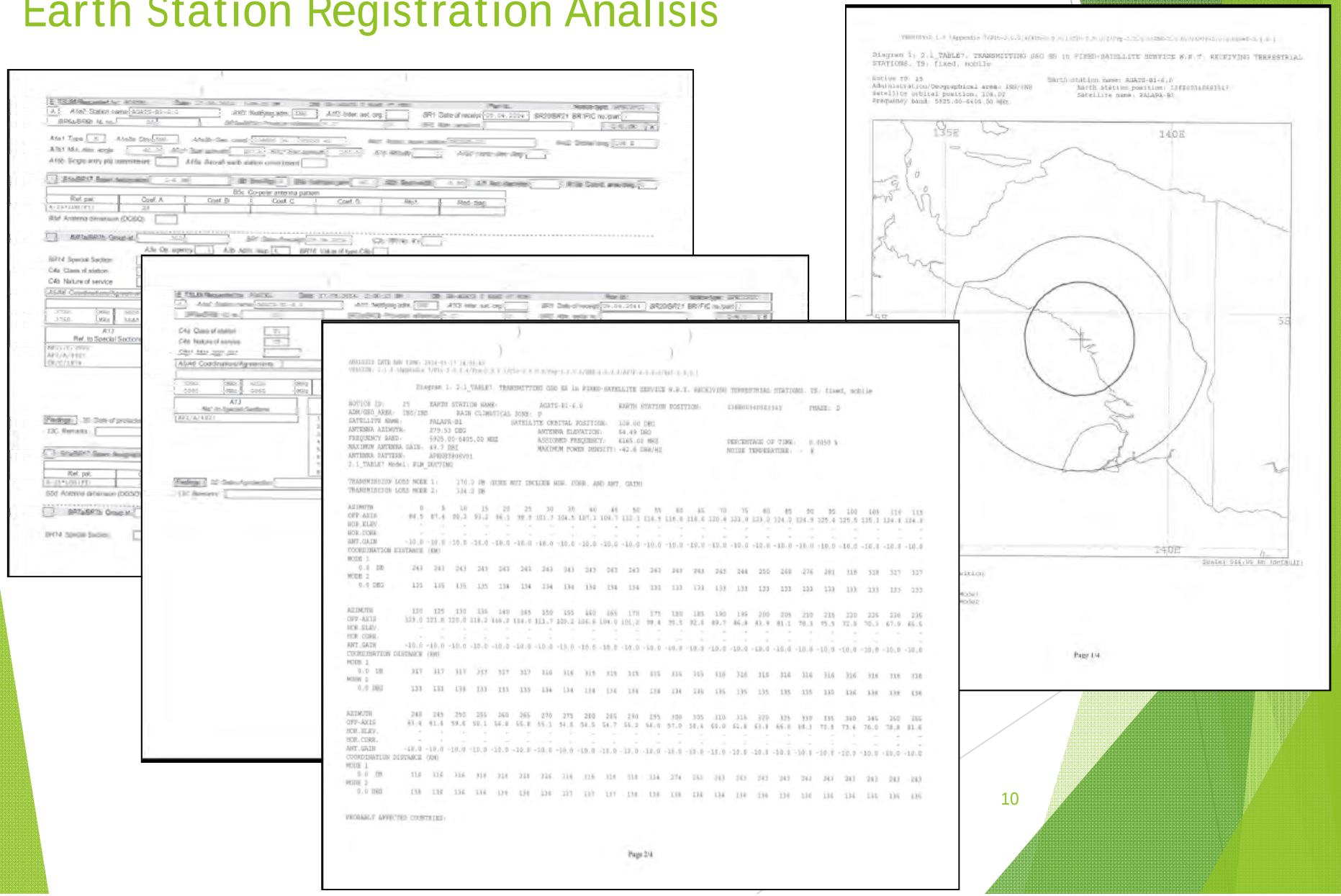
Usage of L-band and C-band in Indonesia



- ✓ Number of earth stations in data base : 21,683 earth stations
- ✓ Number on going process : Approx 200 earth stations
- ✓ Number PART II-S status : 50 earth stations
- ✓ Priority for 3400-4200 MHz (C-Band)

Acceleration of Earth Station Notification to ITU

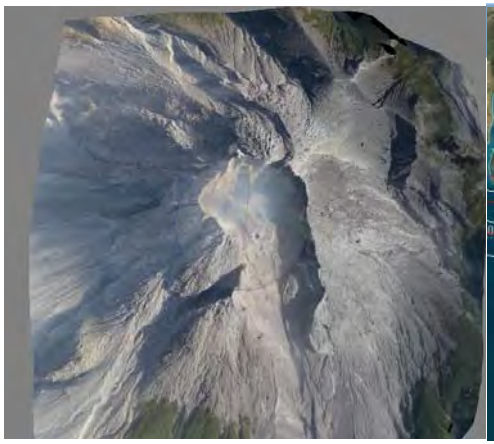
Earth Station Registration Analisis



Indonesia Small Satellite Programs

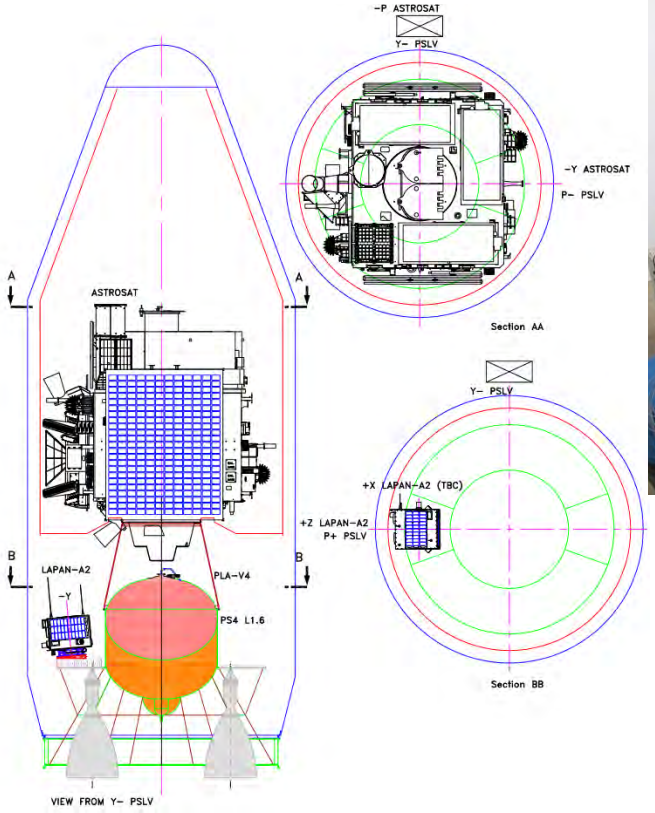
Indonesia institutions LAPAN (National Institute of Aeronautics and Space), Universities – ITB, ITS, UGM, STT Telkom have shown significant progress toward building its own satellites

- 2007 LAPAN TUBsat – First Indonesia's Remote Sensing Satellite
  Join development with TU Berlin Germany
- 2013 IiNUSAT-1 Flying Test Bed
- 2015 LAPAN-A2 (LAPAN ORARI), 29 Sept 2015 succed into the orbit
  Disaster warning and mitigation purposes
  LAPAN-A3
  Multispectral imagery



Indonesia Multifunction Satellite Programme

- Indonesia has prioritized Multifunction Satellite Programme at 115.4E
- Multifunction Satellite is used for Indonesian government communication need.



Indonesia Near Term Plan

Upcoming satellite launches:

- ✓ **2016: BRIsat satellite (replacing Palapa-C2 at150.5E)**
  Telkom 3S (replacing Telkom-2 at 118E)
- ✓ **2017: PSN VI (replacing PSN V at 146E)**
- ✓ **2018: SMAsat (new satellite at 116.1E)**
- ✓ **2019: Multifunction Satellite 115.4BT by MCIT**

New Domestic Satellite Operator :

- **2016: PT. Sarana Mukti Adijaya (SMA)**
- **2016: Indonesia will celebrate 40 years of Satellite PALAPA, the first Indonesia Satellite**


Thank You
gerson@postel.go.id
© esa - 2005 - P.CARRIL