

# **ITU/PITA RRS-16 for Asia & Pacific**

## **Emergency Communications: The Role of Satellites**



*SKY Perfect JSAT  
Corporation*

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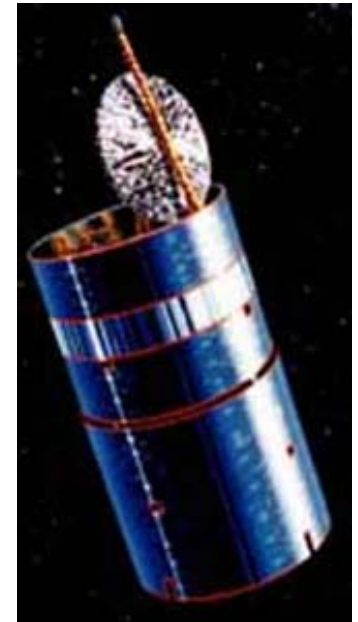
**SKY Perfect JSAT Corporation  
JAPAN**

**21 September 2016**

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## Largest Satellite Operator in Asia

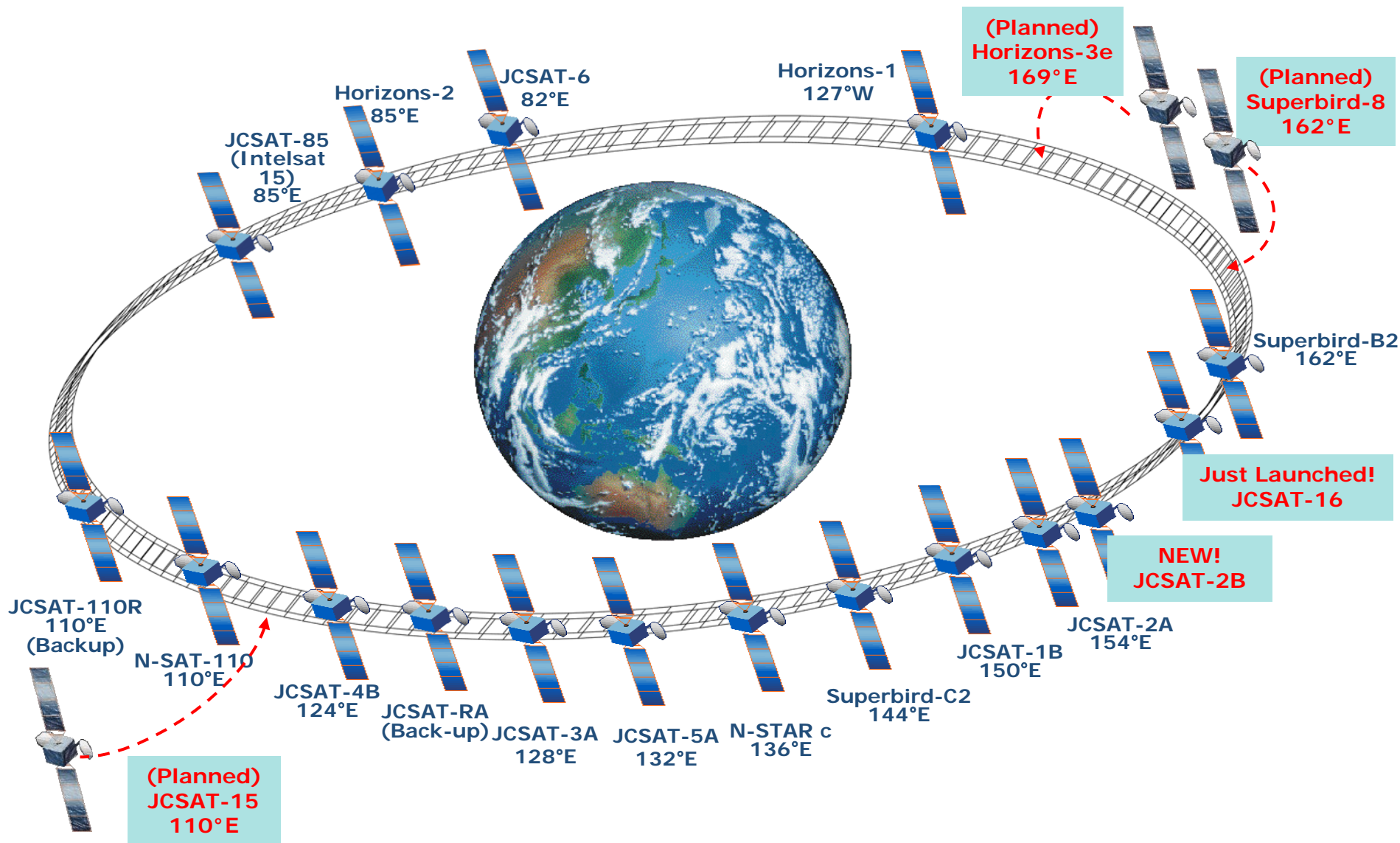
- Japan Communications Satellite Co. established in 1985
- First satellite launched in 1989
- Over 25 years of experience in satellite business both in Japan and globally
  - ✓ Government
  - ✓ Power Companies / Gas Companies
  - ✓ Telephone / Mobile phone companies
  - ✓ TV/Media
- Managed VSAT services
- Extensive experience in SATCOM during natural disasters



# JSAT Satellite Fleet



Fleet of 17 satellites + 3 more satellites in the near future!



## 1. Island Nations in the Pacific Ocean

- ◆ Multiple islands

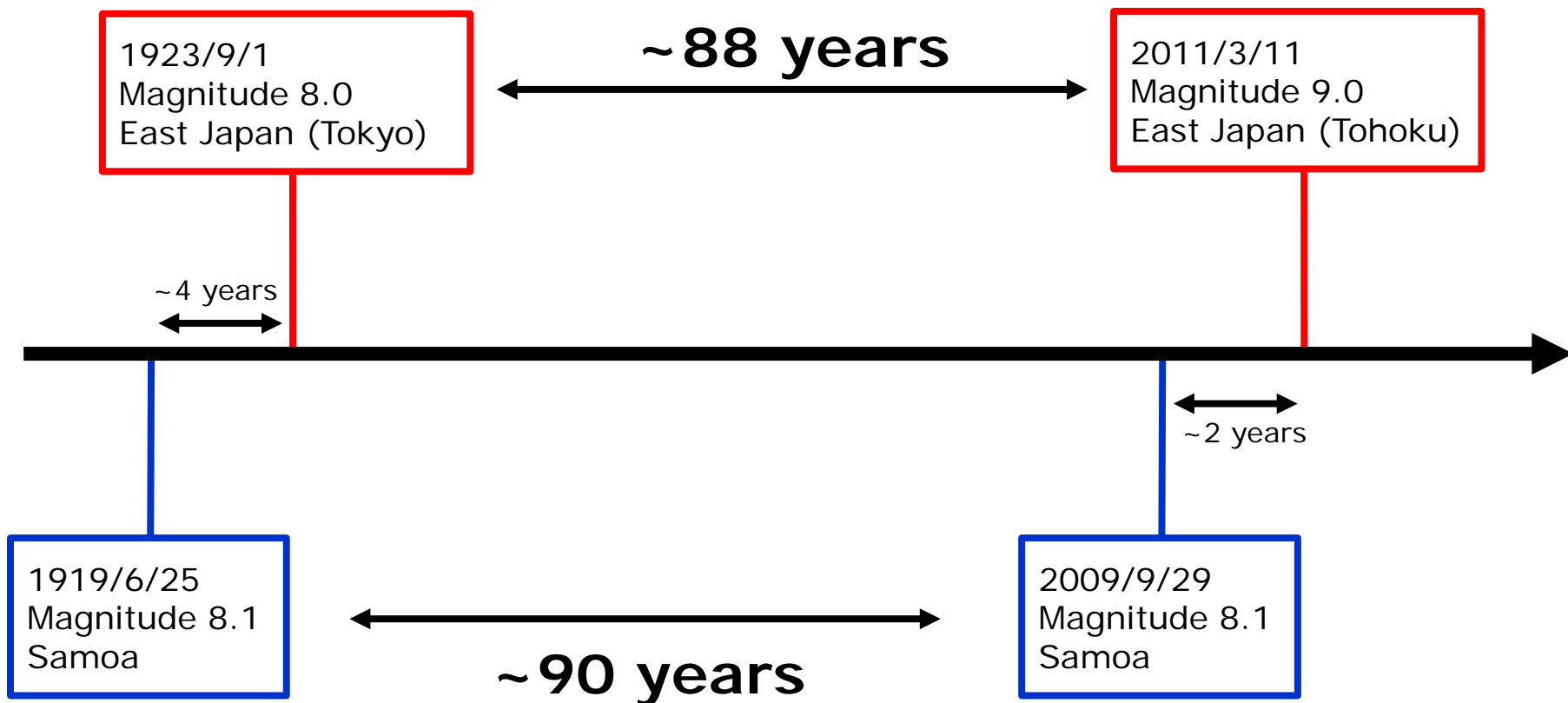
## 2. World Rugby Rankings (as of 2016/9/19)

- ◆ Fiji (10<sup>th</sup>), Japan (12<sup>th</sup>), Samoa (14<sup>th</sup>), Tonga(15<sup>th</sup>)

## 3. Prone to Natural Disasters

- ◆ Earthquake
- ◆ Tsunami
- ◆ Typhoon / Cyclone

# Coincidence or a trend?



*Note:  
Information on this slide is about the dates  
of the events. Any findings derived from  
the dates have no scientific background.*

# 3 Phases of Natural Disasters



(Pre&)Occurrence

Search & Rescue

Restoration & Recovery

Earthquake  
Warning System

Broadcast  
TV / Media, status updates from affected regions, etc.

Communication for Government, Military,  
Police, Fire fighters, etc.

Communication for Telephone Companies & Mobile Backhaul

Communication at  
Evacuation Shelters

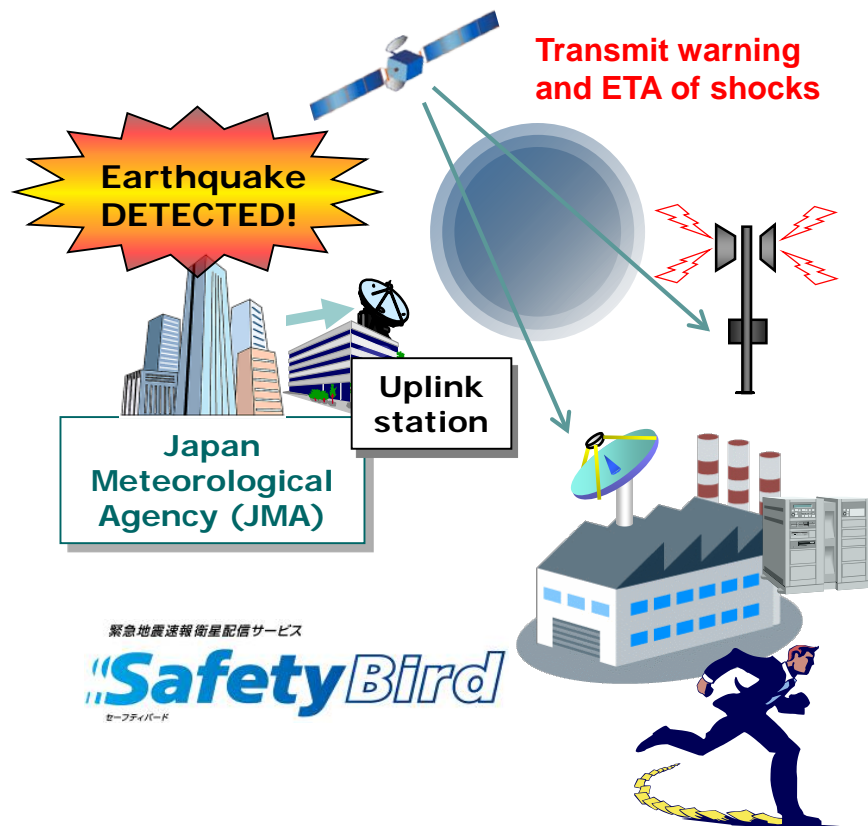
# Case study: Earthquake Warning System



(Pre&)Occurrence

Search & Rescue

Restoration & Recovery



## Real story from 2011



On 3/11, a printing company in the Tohoku area received the earthquake warning 5 seconds prior to the initial shock.

All employees escaped safely and were able to prepare for aftershocks.



# Case study: SATCOM for Search & Rescue



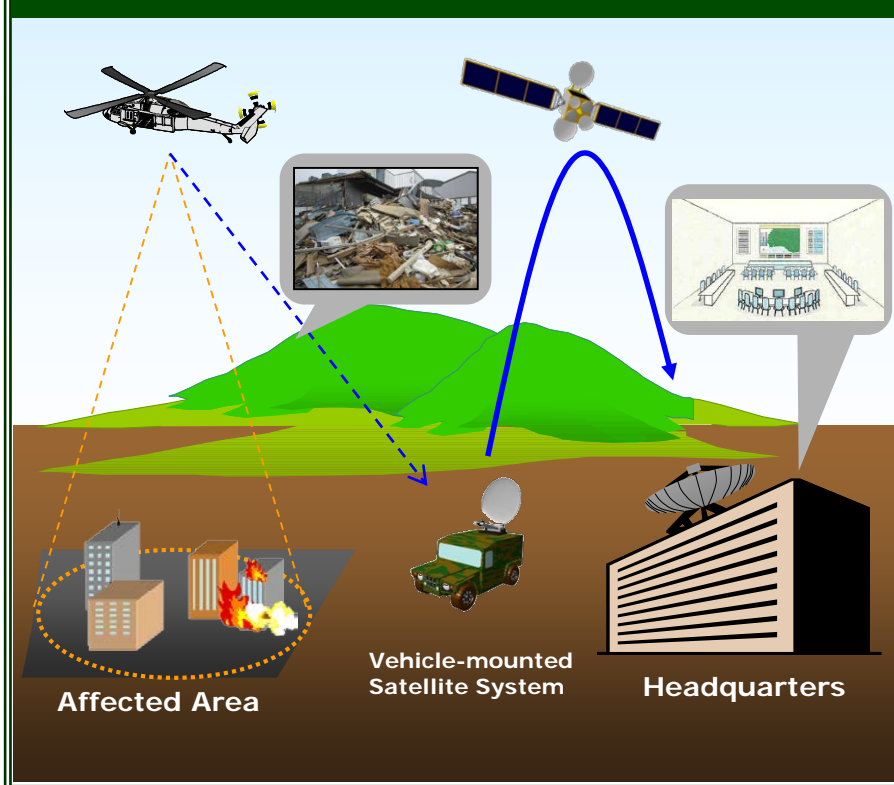
(Pre&)Occurrence

Search & Rescue

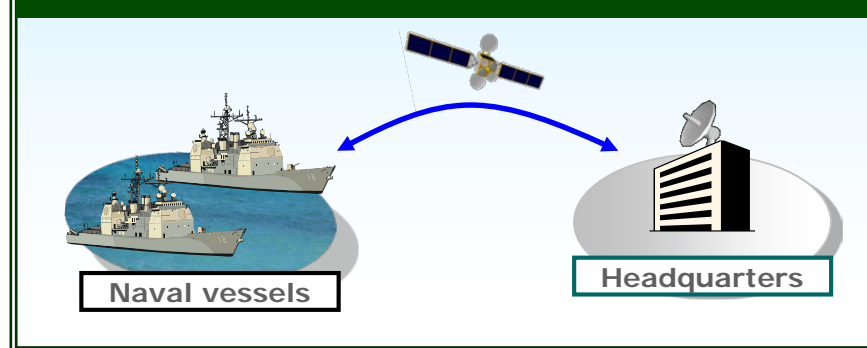
Restoration & Recovery

Japan Self Defense Force (JSDF) and Police Force immediately commenced reconnaissance missions and sent their respective servicemen & servicewomen to the affected area.

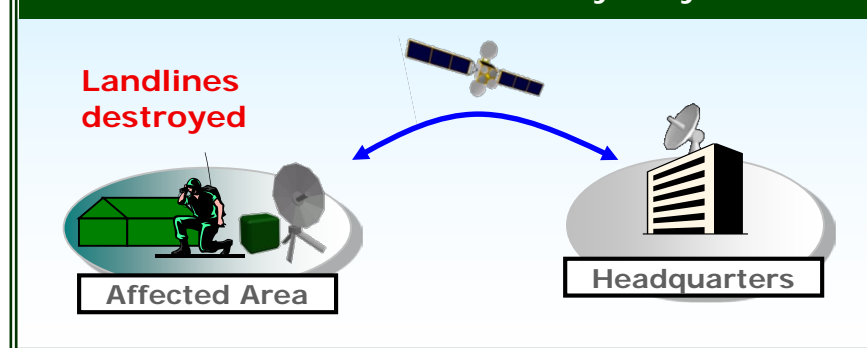
## Live video feed of the affected areas



## Communication with Naval vessels



## Satellite communication with flyaway VSATs



**Search & Rescue Operations commenced immediately using live info from affected areas**



# Case study: SATCOM for Mobile Backhaul

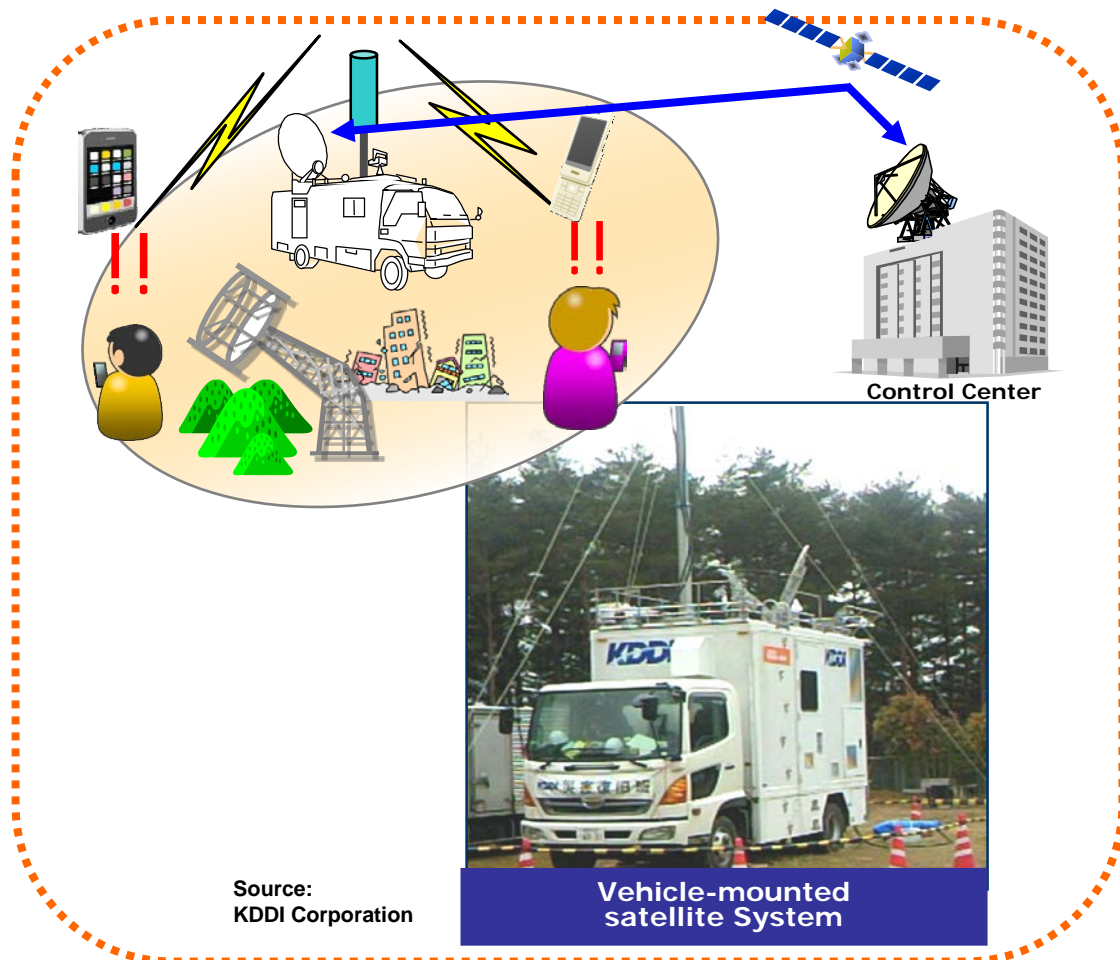
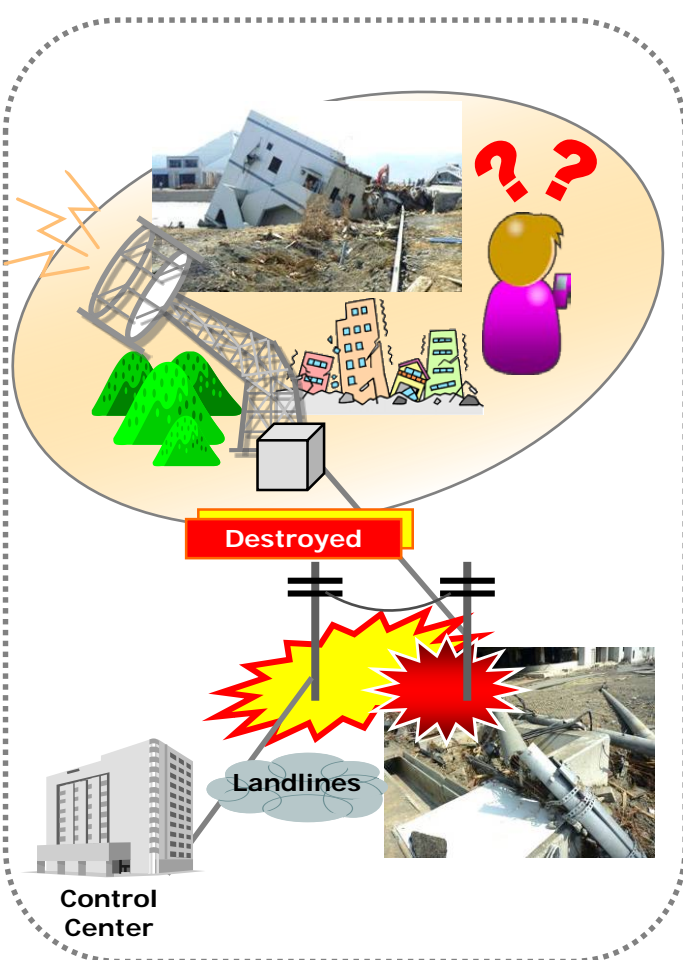


(Pre&)Occurrence

Search & Rescue

Restoration & Recovery

Terrestrial systems were destroyed by the tsunamis, SATCOM was used for mobile backhaul.  
**Approx. 40 vehicle-mounted satellite systems were operated by mobile phone companies in 2011.**



Source:  
KDDI Corporation

Vehicle-mounted  
satellite System

# Case study: SATCOM at Evac. Shelters



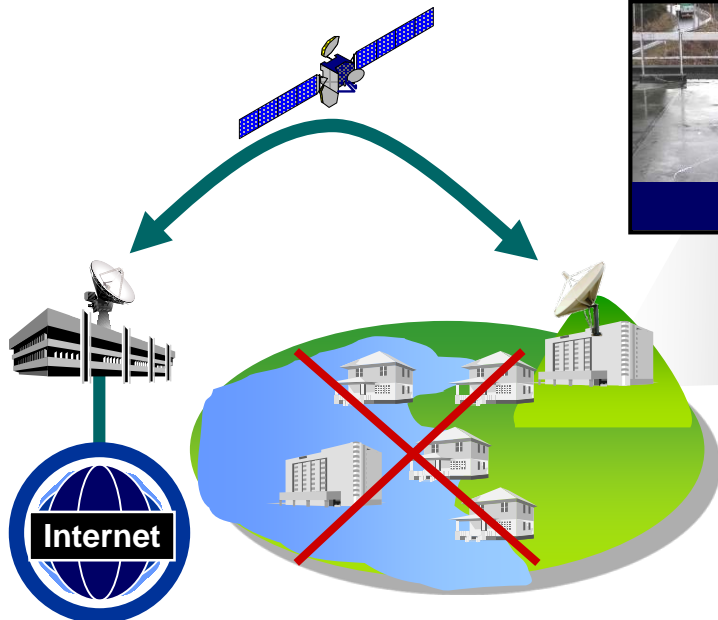
(Pre&)Occurrence

Search & Rescue

Restoration & Recovery



**JSAT provided Free Internet via satellite to Evac. Shelters**



**Access to the internet enabled evacuees to gather information and served as a pastime for children.**  
**Over 150 satellite internet systems were provided to evac. shelters and temporary housing.**

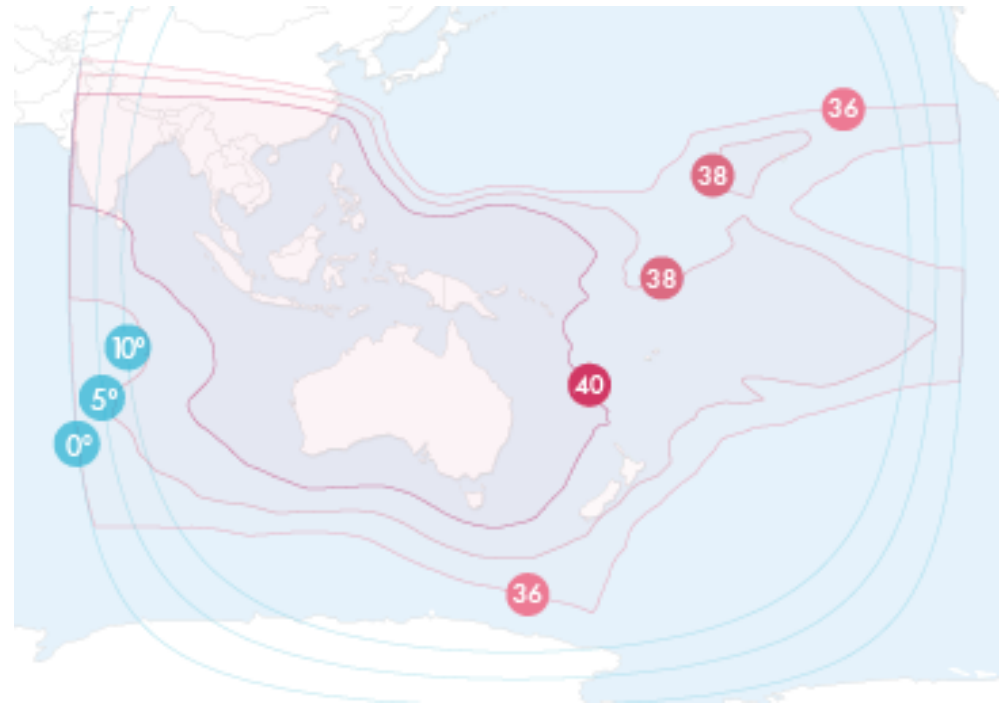
## JCSAT-2B Satellite

### Ku-band



in dBW

### C-band



in dBW

# Fa'afetai!

# Thank you!

Visit our website at [www.sptvjsat.com/en](http://www.sptvjsat.com/en) !

For information on Space & Satellite Business visit [www.jsat.net/en/](http://www.jsat.net/en/) !

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