



国立研究開発法人

情報通信研究機構

National Institute of Information and  
Communications Technology

**The sole**  
**Japan national research institute**  
**in the field of ICT**

**(information and communications technologies)**

**Sensing fundamentals**

Applied  
Electromagnetic  
Research Cluster



**Cybersecurity**

Cybersecurity  
Research Cluster



**Frontier research**

Advanced ICT  
Research Cluster



**Integrated ICT**

Network  
Research Cluster



**Data utilization and  
analytics platform**

AI/Brain Networks  
and Communication  
Research Cluster



**Open  
Innovation**



**Open Innovation**

**Overseas**

**Collaboration among industry, Academia, government**

**International cooperation and dissemination of achievements**

**Intellectual property strategy**  
**Standardization**

**NICT**

**Industry**

**Academia**

**Human resource development**

**Regional alliance**

**Local community**

**Information & communications industry promotion**

**Research network formation/platform building**

**Social verification of R&D outcomes**

**Enhancement of TESTBEDS**



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## ***Contents for Innovfest***

***VoiceTra***

***HIMAWARI Real-time WEB***

***Space Weather***

# Mission

**To break the language barriers of the world**

Since **2014**, Japan has been pursuing the national project,

**“Global Communication Project,”**

with the aim of realizing a society without language barriers.

**ASTREC** was established by NICT, a national research and development agency, as a research hub that would play a central role in research and development under the Global Communication Project.



# Himawari-8 real-time web

**Detect the user's location and then adjust the time to his/her local time automatically**

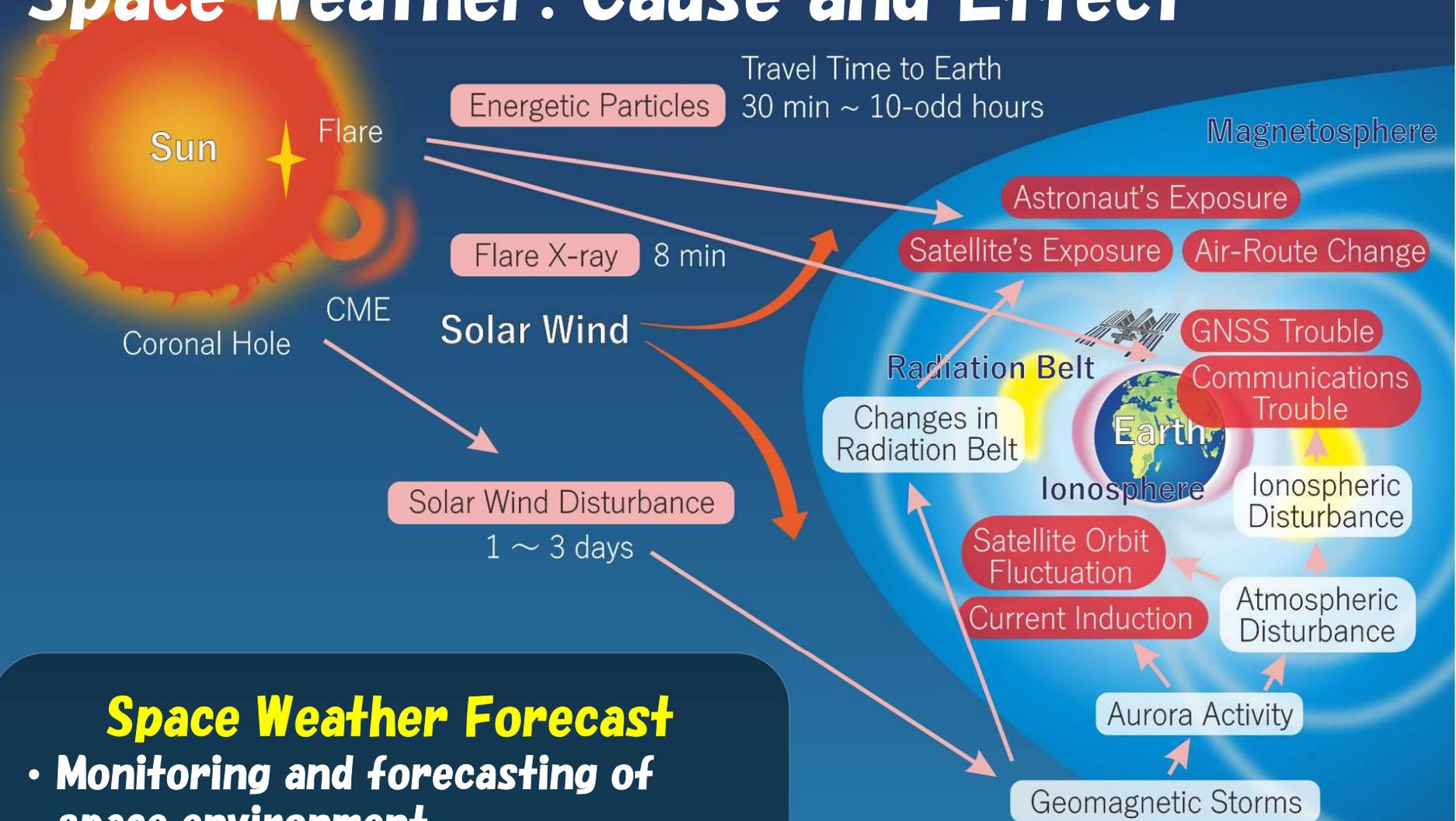
**Provide full-resolution remotely sensed images **in real time****

**Supported in multiple languages, Chinese, Thai, English, Indonesian, Myanmar, etc.**

**User can make an animation by moving forwards or backwards automatically**

**The mirror site of Himawari-8 real-time web:  
Launched **in Thailand** in 2017  
(<http://himawari.ino.nectec.or.th>)**

# Space Weather: Cause and Effect



## Space Weather Forecast

- **Monitoring and forecasting of space environment**
- **Reducing space weather risks in space and society.**

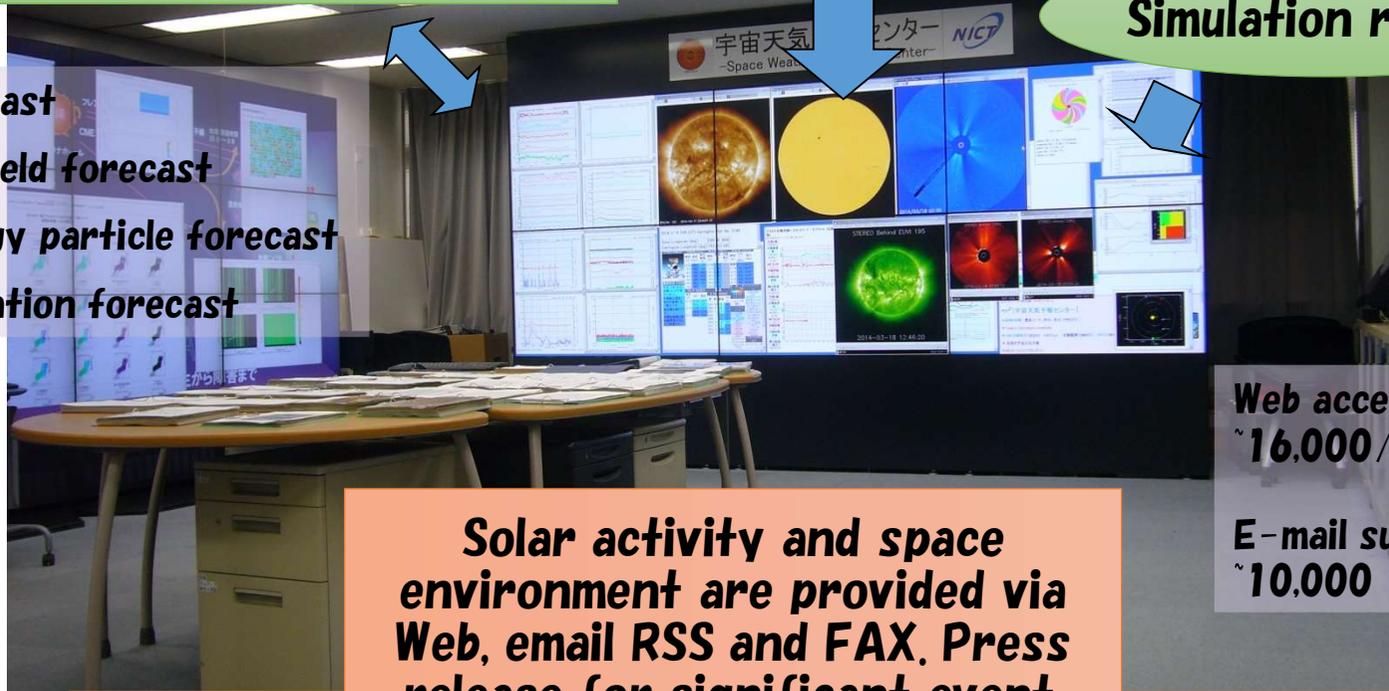
# NICT Space Weather Forecast Center

Forecast information and data exchange and sharing among ISES SW forecast center

Real-time space weather monitoring

Simulation results

- Flare forecast
- Magnetic field forecast
- High-energy particle forecast
- HF propagation forecast



Solar activity and space environment are provided via Web, email RSS and FAX. Press release for significant event.

Web access:  
~ 16,000/month

E-mail subscribers:  
~ 10,000

Domestic users: satellite operator, aviation office and companies, power plant companies, HF telecommunicator / broadcaster, resource survey, Univ. and research institutes, amateur HF operators



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**ASEAN IVO**



**ICT Virtual Organization  
of ASEAN Institutes and NICT**

# ASEAN IVO



## Activities

- **Developing common technologies in wide area based on common consideration**
- **Developing multinational collaborative project**  
**to solve global / local social problems**
- **Promoting collaborative research by mutual researcher exchange**
- **Research exchange by global joint workshop etc.**

## Steering Committee



- **1~2 from each country.**
- **Planning, evaluation, and review of projects.**
- **Joint / Coordinated Funding.**

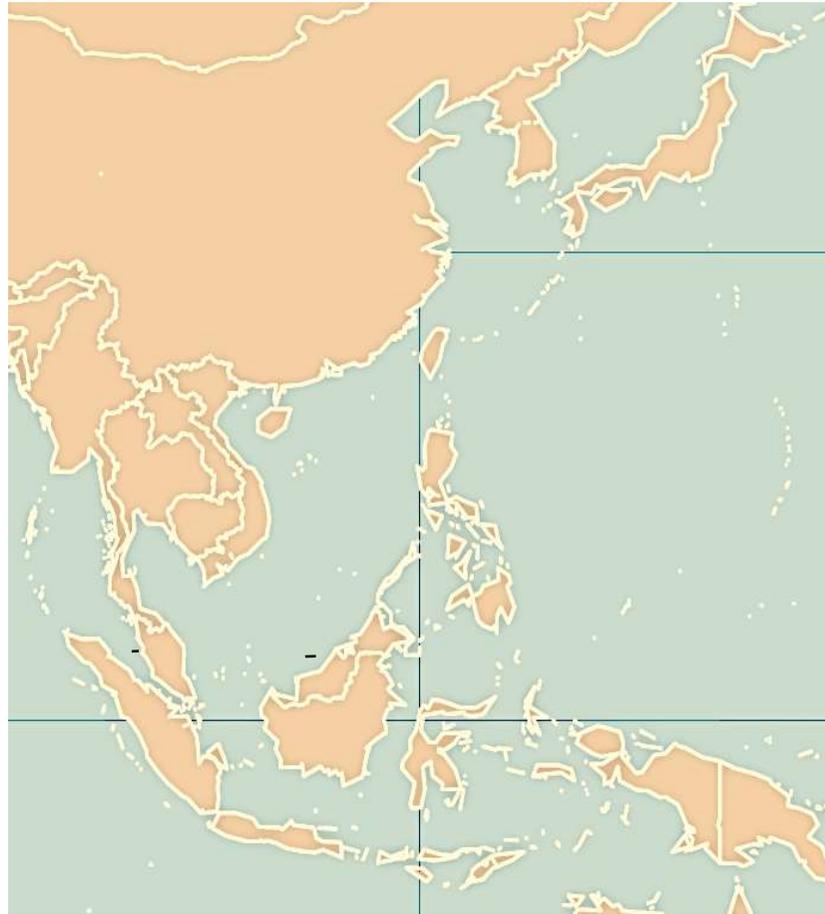
## Projects, Events

## Technology Development and Promotion



**ICT benefit  
to all people**

# ASEAN IVO Members



## Myanmar



UCSY  
UCSM

## Thailand



Chulalongkorn U.



NECTEC



CMU



CHE



TNI



NIMT



KMITL

KMUTT

## Singapore



I'R



SingAREN



NTU



NUS



SUTD

## Indonesia



BPPT

LIPI



MCIT

ITB



Tel-U

## Malaysia



MIMOS



UTM

UPM



USM



## Brunei

UBD



UTB



## Japan

NICT

NES

## Laos

NUOL



## Vietnam

PTIT



VNU-IFI



VNU-UET



VNU-ITI

IOIT



HUST



DUT



UIT-HCM

## Philippines

Mapua U



## Cambodia

NIPTICT

