ArkEdgeSpace

IoT experiment with Nano satellite in Fiji

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January 17, 2026

[新規]

Where is Fiji ?

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ArkEdgeSpace

Outline of the Experiment

- Collect meteorological data every hour
  (Wind speed, direction, Air pressure, Temperature, Humidity)
- Uplink the data when AE satellites are over Fiji
  920MHz / 250mW / LoRa / 2kbps burst mode
- Store the data on board of AE satellites (LEO)
- Downlink the data when AE satellites are over Japan
  X band (8GHz)
- Access the data on ArkEdge Insights in Fiji via Internet

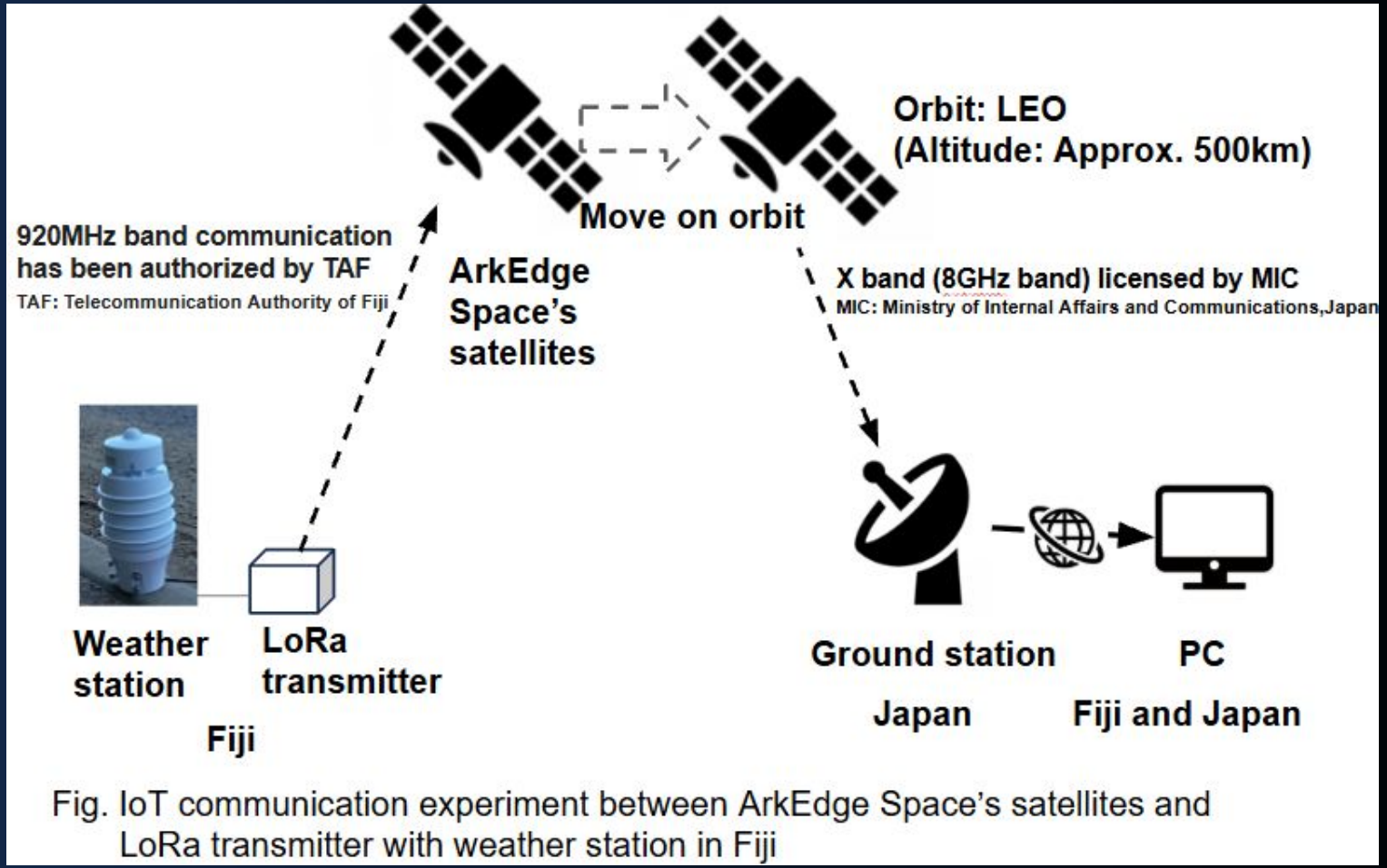

Fig. IoT communication experiment between ArkEdge Space's satellites and LoRa transmitter with weather station in Fiji

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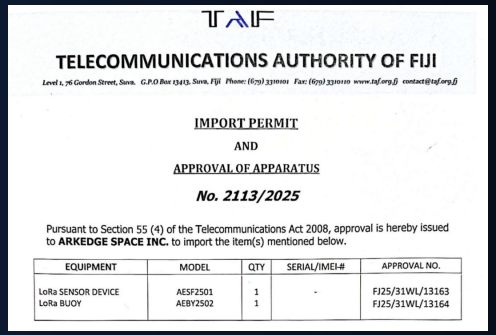
License issue of Fiji case

- **Spectrum License :**
  Ministry of Trade, Co-operatives, Small and Medium Enterprises, and Communications (MTCSME)
  No frequency allocation for Short Range Device on 920 MHz band in Fiji

- **Telecommunication License : → License free for our experiment**
  Telecommunications Authority of Fiji (TAF)

- **Import Permit :**
  Telecommunications Authority of Fiji (TAF)

3 months !



TAF

TELECOMMUNICATIONS AUTHORITY OF FIJI

Level 1, 76 Gordon Street, Suva. G.P.O Box 13413, Suva, Fiji Phone: (679) 3310101 Fax: (679) 3310110 www.taf.org.fj contact@taf.org.fj

IMPORT PERMIT
AND
APPROVAL OF APPARATUS
No. 2113/2025

Pursuant to Section 55 (4) of the Telecommunications Act 2008, approval is hereby issued to **ARKEDGE SPACE INC.** to import the item(s) mentioned below.

EQUIPMENT	MODEL	QTY	SERIAL/IMEI-#	APPROVAL NO.
LoRa SENSOR DEVICE	AESF2501	1	-	FJ25/31WL/13163
LoRa BUOY	AEBY2502	1		FJ25/31WL/13164

December 2025, ArkEdge Space Inc.

LoRa Sensor Device

AESF2501

Data sheet

Product Overview

The AESF2501 is a high-performance sensor device utilizing LoRa (Chirped Spread Spectrum) technology for long-range communication via LEO satellites and low power consumption. Ideal for various IoT applications, including environmental monitoring, asset tracking, and smart agriculture.

Key Features

- LoRa (Chirped Spread Spectrum) Modulation
- Long-range communication via LEO satellites
- Low power consumption
- Water proof
- Multiple data rate options

Technical Specifications

Item	Specification
Manufacturer	ArkEdge Space Inc.
Dimensions	275mm x 253mm x 185mm

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First attempt at Nadi, Fiji January, 2026

DC power from Rent-a-car's battery

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ArkEdgeSpace

Success!
at Backyard of FMS

Designed for deployment in remote areas with no AC power or internet connectivity.

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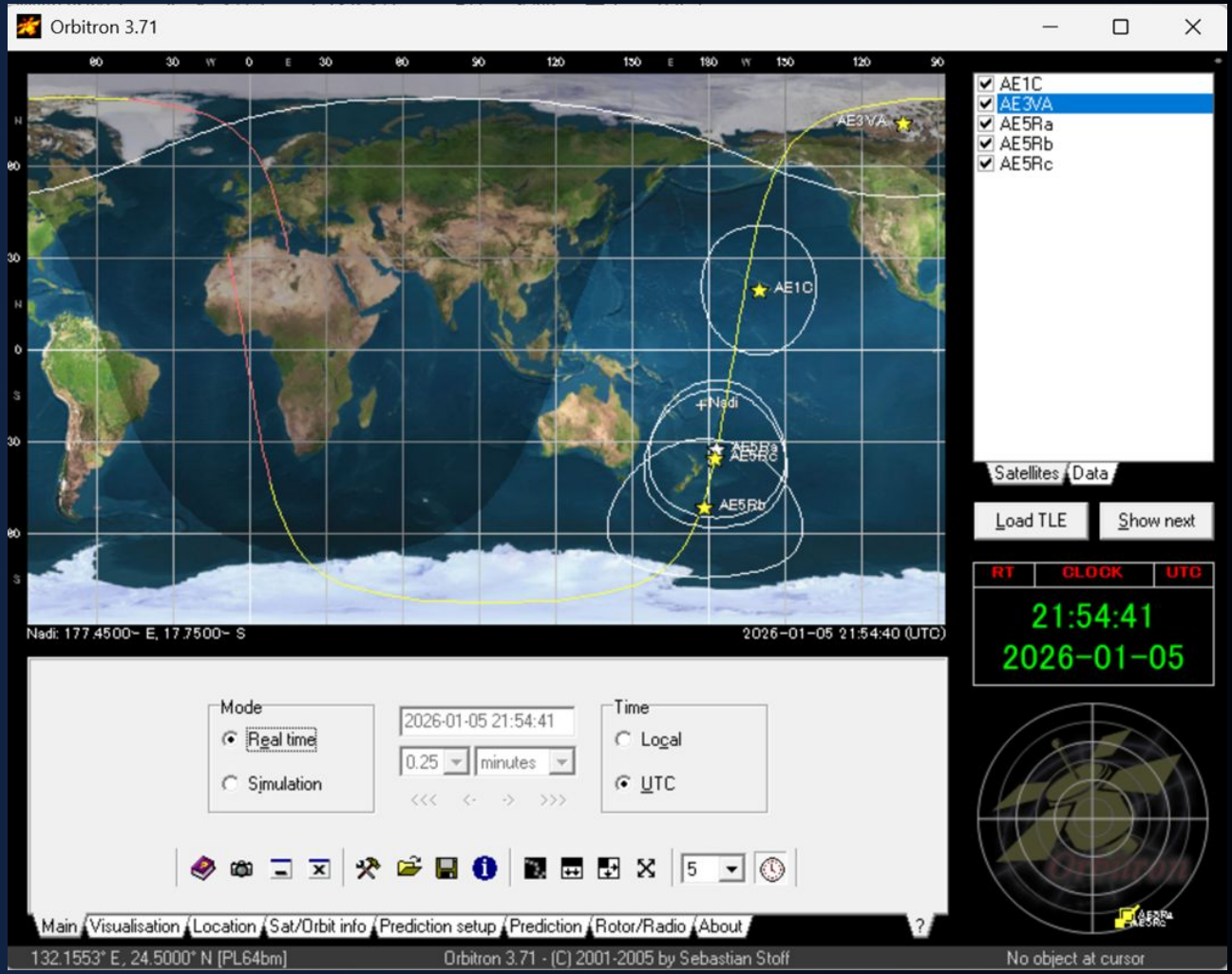

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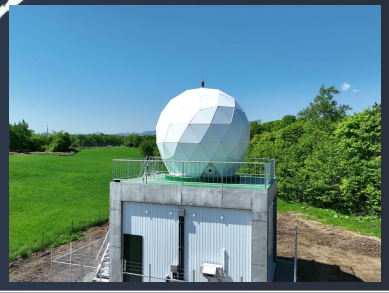
Establishment and Operation of Ground Stations

- Established proprietary satellite ground stations in Hokkaido and Shizuoka.
- Control own satellites and provide ground station services to external operators.

Tokyo (Ariake)

Headquarters (Operations Room)

Hokkaido(Taiki)



Taiki Ground Station (to be completed in August 2025)

〈Key Specifications〉
- Parabolic Antenna Diameter：**3.9 m**
- Supported Frequency Bands
  S-band ：Uplink / Downlink
  X,Ka-band：Downlink only
- Connected to the Ariake headquarters via a high-speed dedicated line, it enables **remote satellite operations**.
- Equipped with **a ‘radome’ for all-weather operation**

Shizuoka(Makinohara)

Makinohara Ground Station (completed in March 2023)

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For the demonstration in your country

We need

- Confirmation of licence free or Temporary license for 920MHz / 250mw, Ground to Satellites

- Import permit (If you use ArkEdge Space’s transmitter)

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Empowering people with satellites for a prosperous future.