



# QZSS Updates

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# 1. System Overview

## Functional Capability:

GPS Complementary

GNSS Augmentation

Messaging Service

Coverage: Asia and Pacific region

Signals (QZS-1):

L1C/A, L1C, L2C and L5

L1S (L1-SAIF) on 1575.42 MHz

L6 (LEX) on 1278.75MHz

L1Sb will be added as SBAS from 2020's

(Today) 1st QZSS satellite "MICHIBIKI"

Four satellites constellation will be established and the service will start in 2018.



# 1. QZSS Overview

## Japan Region

- Over 20 degrees elevation  
More than 2-QZS are available
- Over 60 degrees elevation  
1 QZS is available

## Functional Capability:

GPS Complementary

GNSS Augmentation

Messaging Service

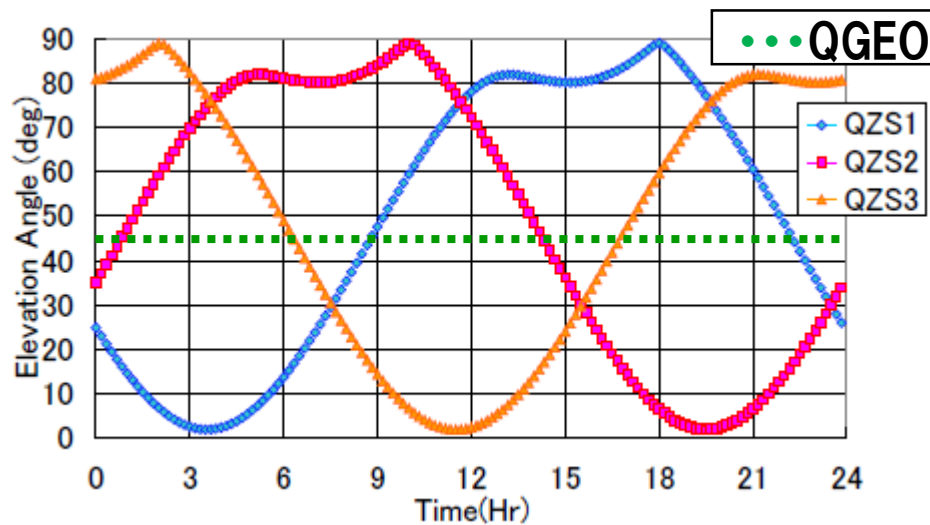
## Coverage: Asia and Pacific region

1 Geostationary satellite

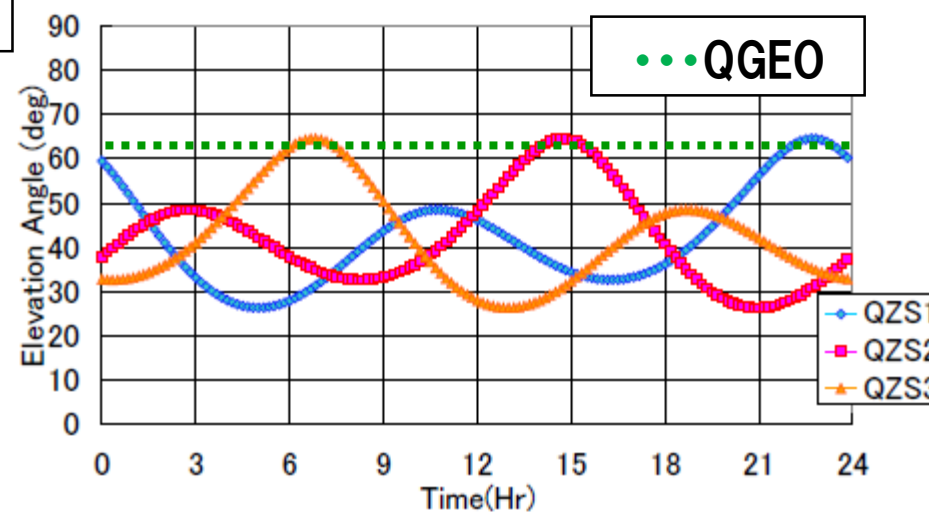


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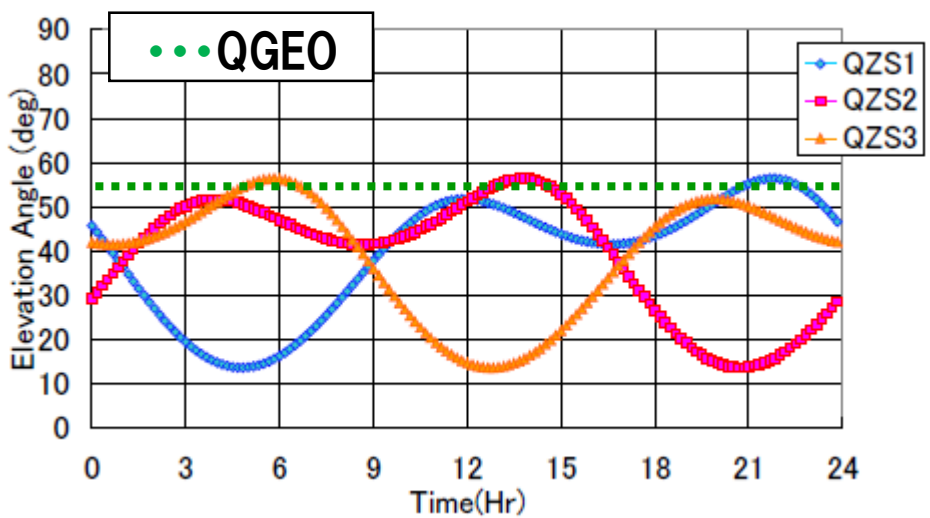
# QZSS Visibility Time



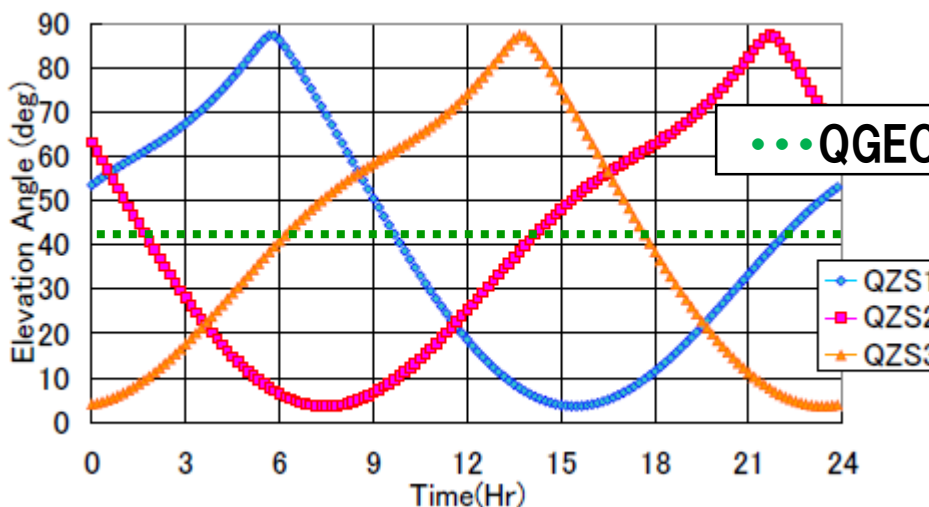
TOKYO



SINGAPORE



BANGKOK



SYDNEY

Ref. : IS-QZSS v1.7, JAXA, 7 Jul. 2016

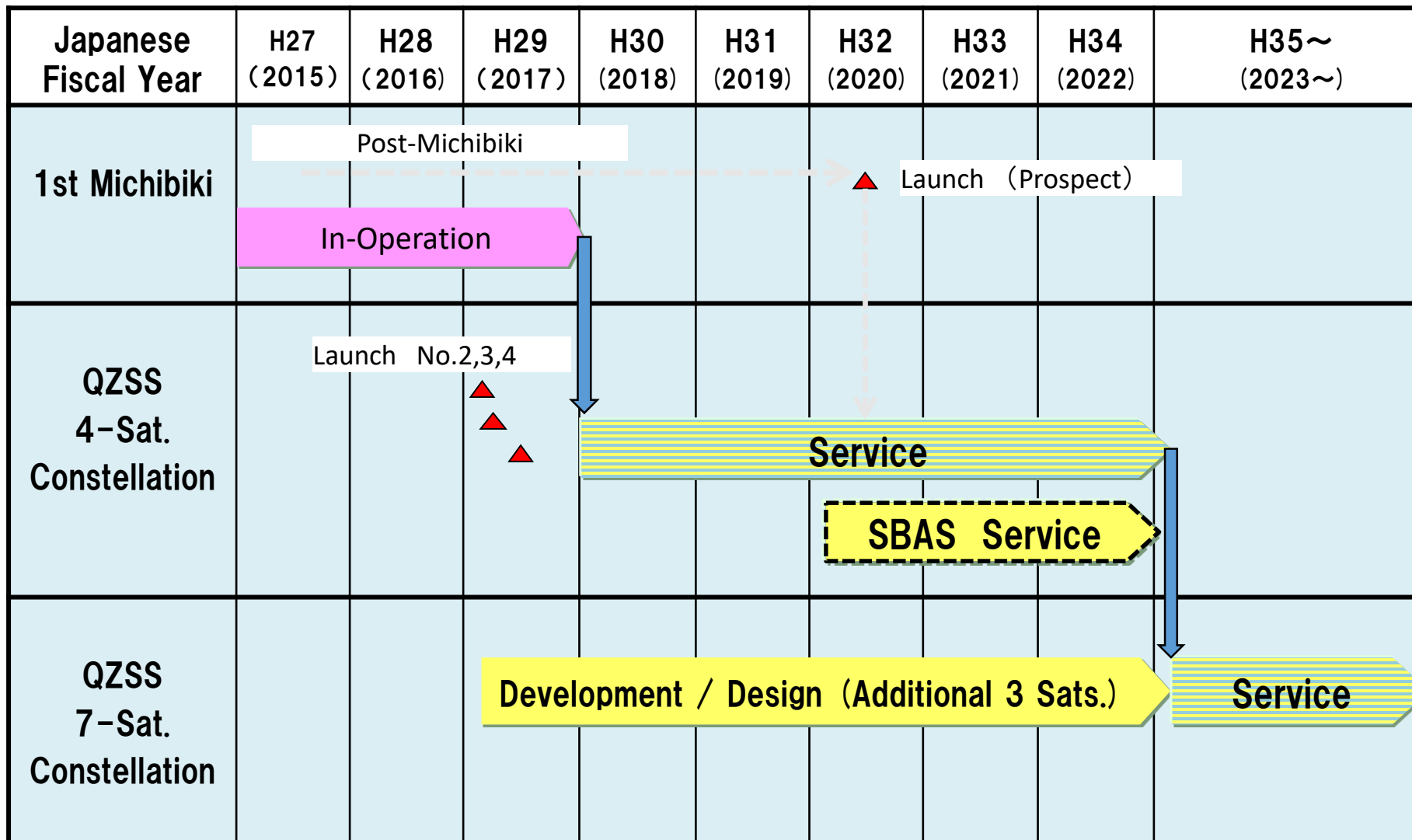
## Positioning Signal of QZSS

Not only positioning complementation signal, but satellite orbit, time, and ionosphere correction information will be also transmitted as augment information.

				1 <sup>st</sup> Satellite	2 <sup>nd</sup> -4 <sup>th</sup> Satellite		
				QZO	QZO	GEO	
L1C/A	1575.42 MHz	Positioning	complement GPS	○	○	○	
L1C		Positioning	complement GPS	○	○	○	
L1S		Augmentation (SLAS)			○	○	○
		Message Service			○	○	○
L2C	1227.60 MHz	Positioning	complement GPS	○	○	○	
L5	1176.45 MHz	Positioning	complement GPS	○	○	○	
L5S		Augmentation Experimental Use		—	○	○	
L6	1278.75 MHz	Augmentation (CLAS)		○	○	○	
L1Sb	1575.42	Augmentation	SBAS	—	—	○	

SBAS Service will be available from the beginning of 2020's.

# QZSS Program Schedule (Update)



SBAS Service will be available from 2020's under Ministry of Land, Infrastructure, Transport and Tourism jurisdiction.