



Runway End Safety Area Phuket International Airport



- Phuket province is considered as the most popular destination in Thailand. Many tourists visit Phuket for its famous beaches, natural beauty, tourist attractions, and nearby provinces.

- Phuket International Airport locates in the southern part of Thailand. It is the third-busiest airport after Suvarnabhumi International Airport and Don Mueang International Airport with 65,105 international flights and 50,349 domestic flights in 2019.
- Phuket International Airport has a capacity to handle 24 flight operations per hour.

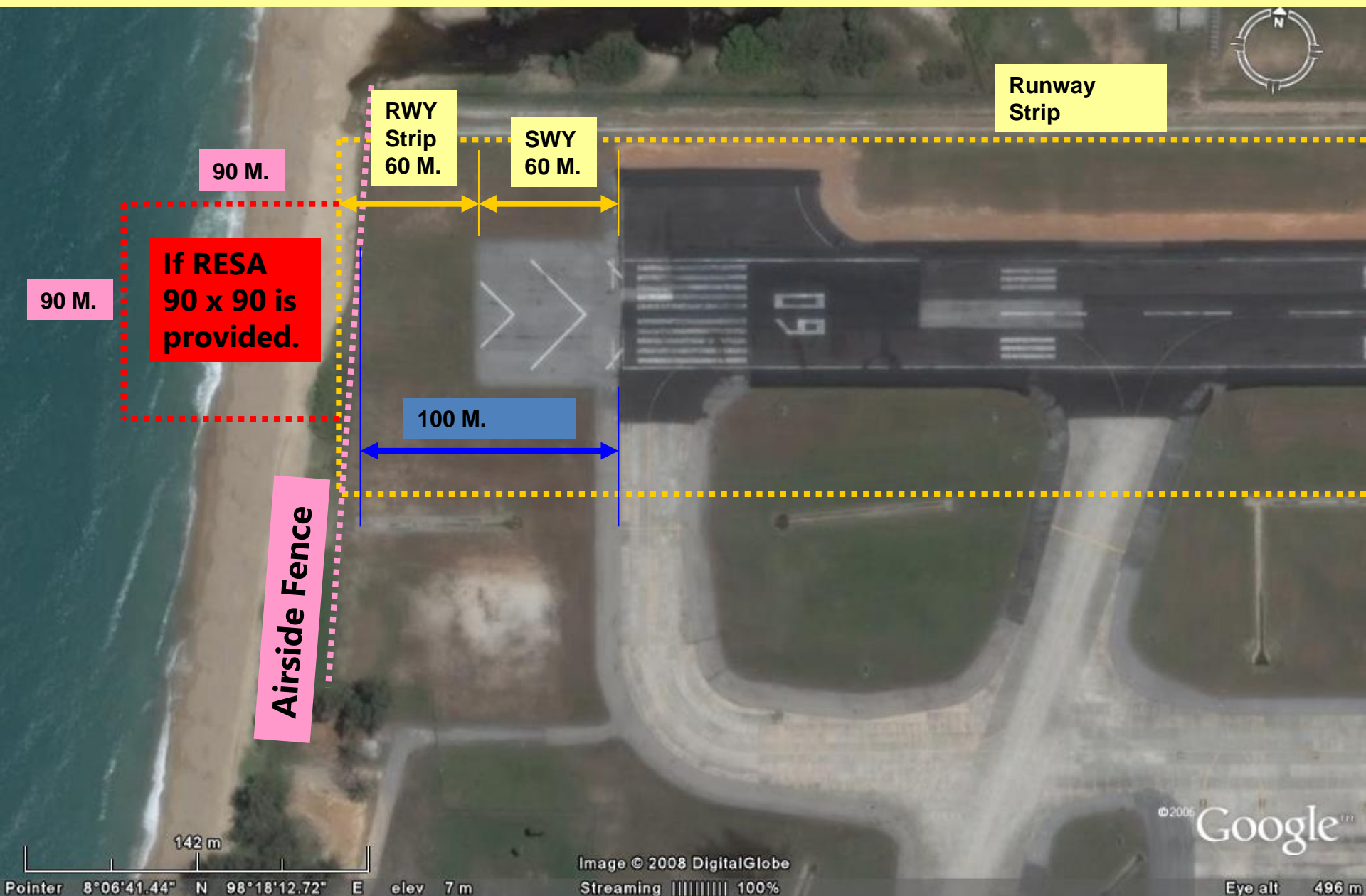


Phuket airport is runway Code number 4

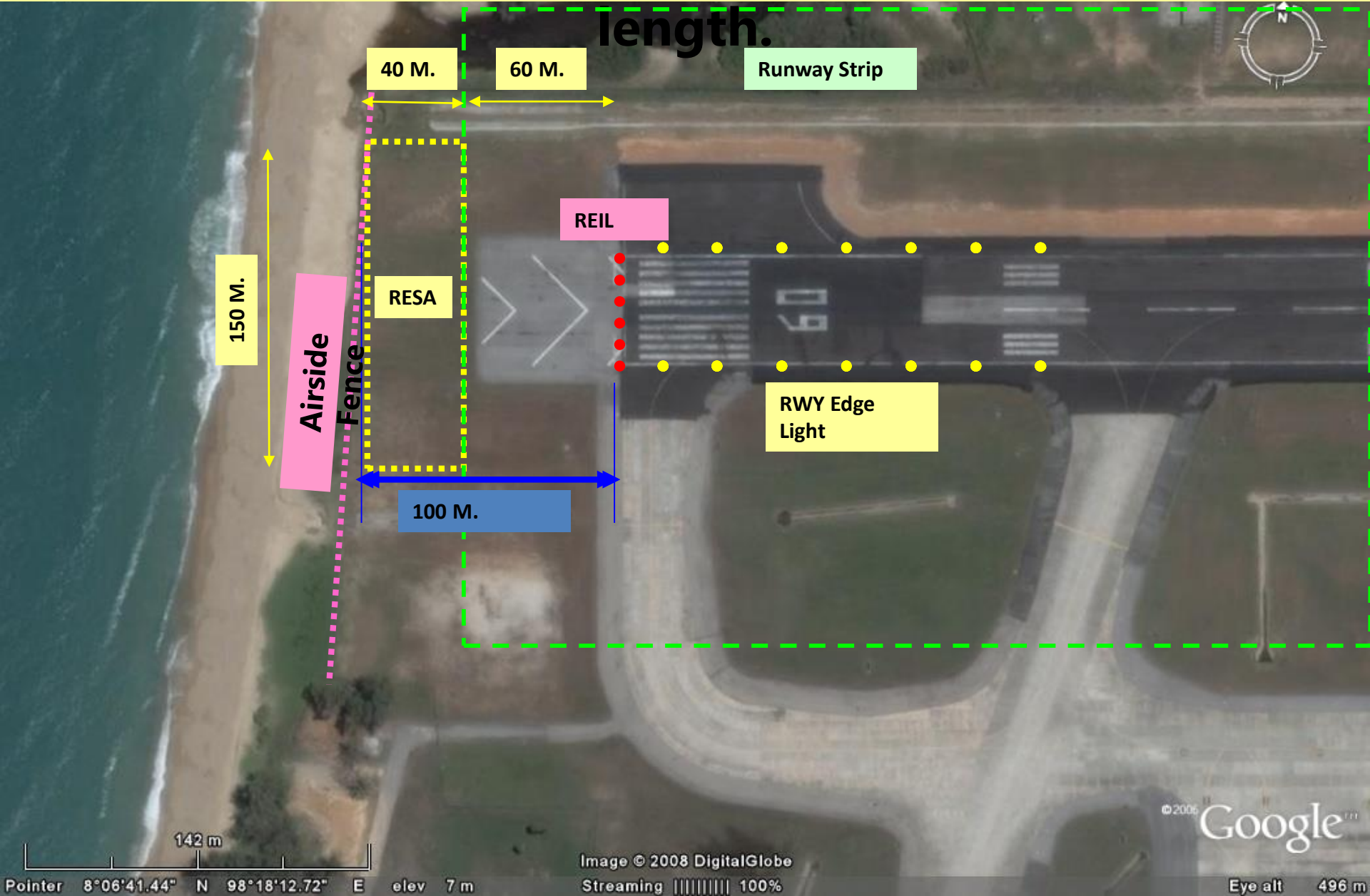


RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)
1	2	3	4	5
09	3000	3000	3060	3000
27	3000	3000	3060	3000

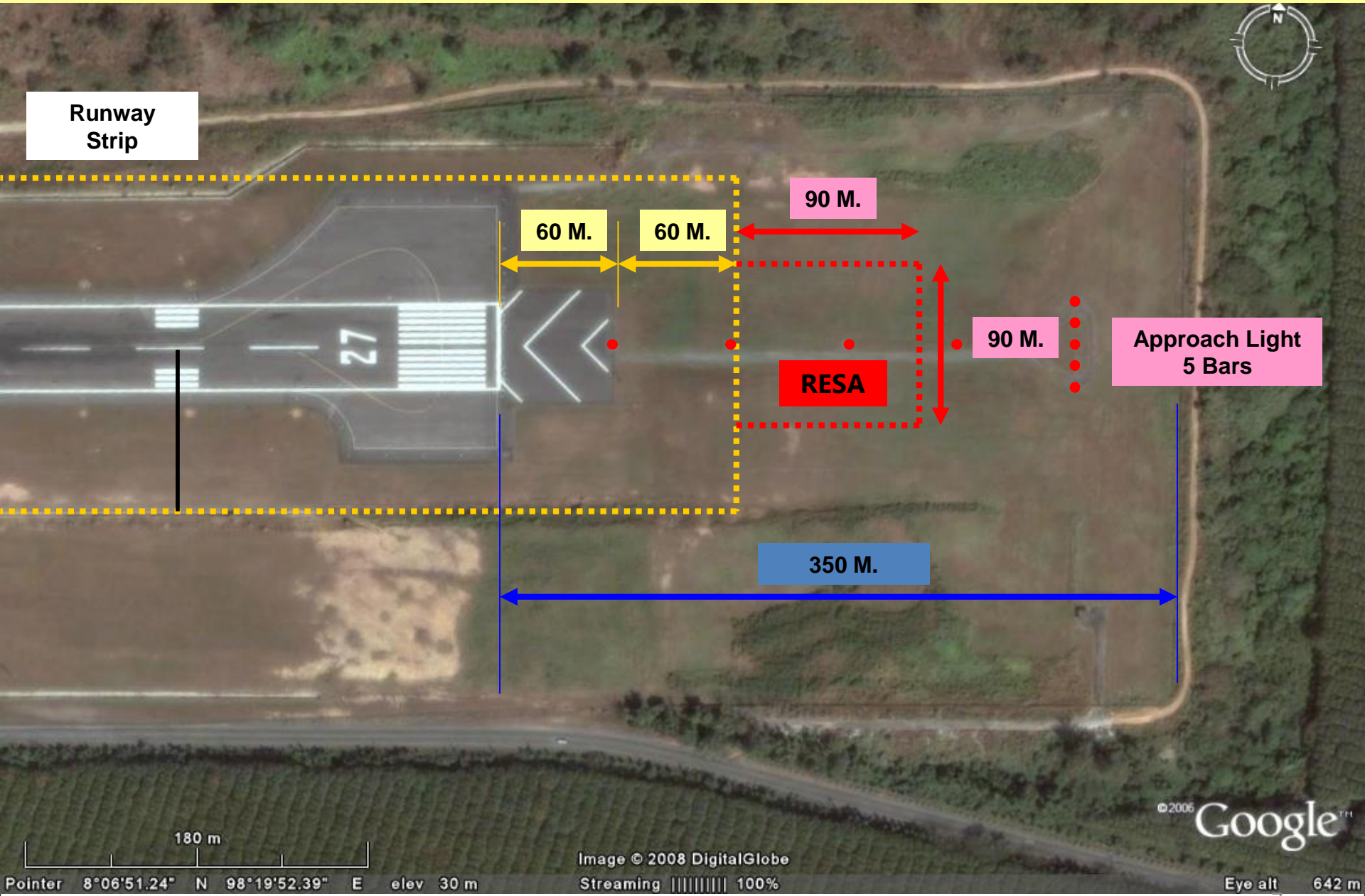
End of Runway 27 – RESA is not available.



If the Stopway is cancelled, RESA will be 40m in length.



End of Runway 09 – RESA is 90 m x 90 m



Runway Strip

60 M.

60 M.

90 M.

RESA

90 M.

Approach Light 5 Bars

350 M.

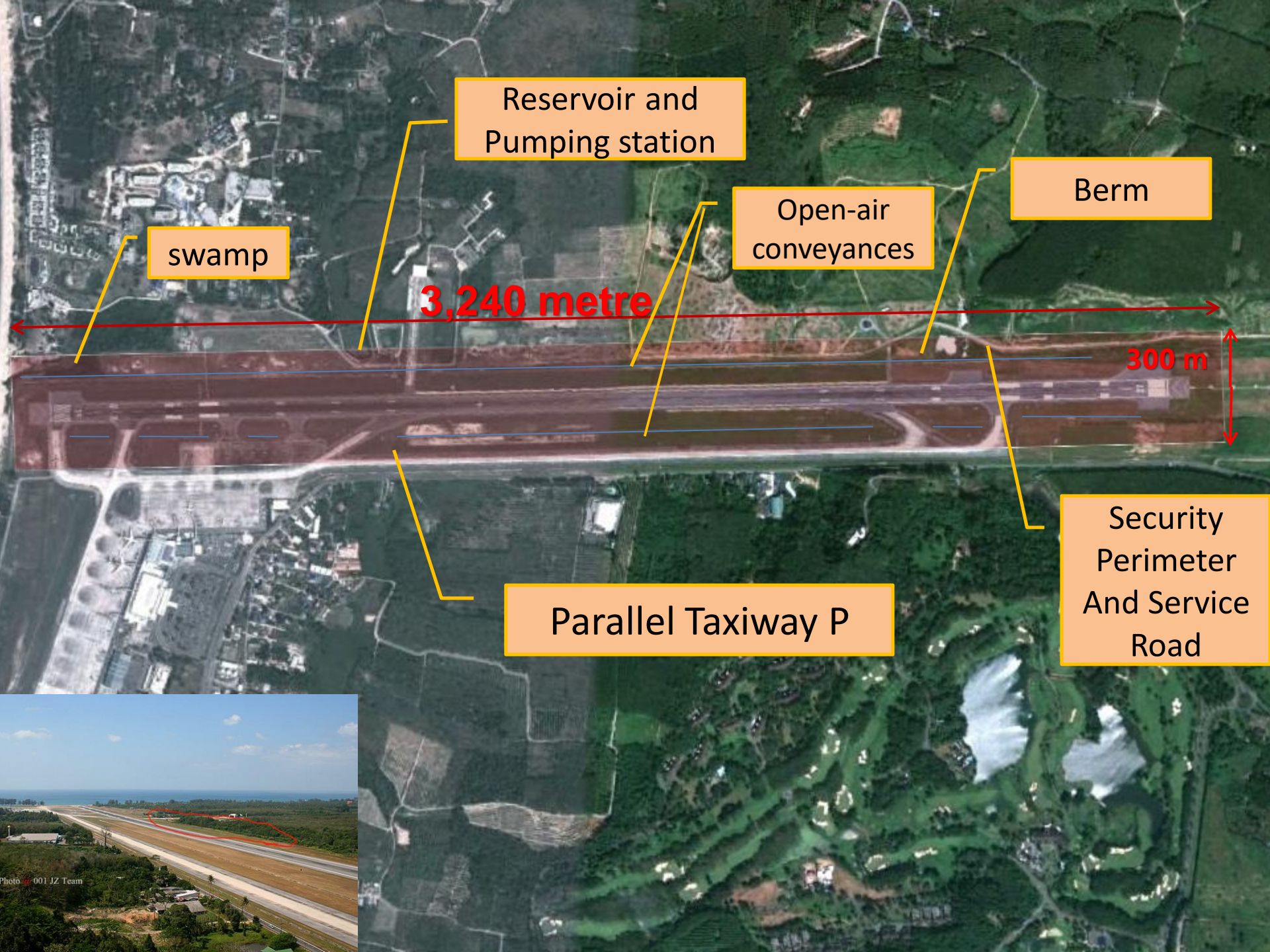
180 m

Image © 2008 DigitalGlobe
Streaming 100%

© 2006 Google

Eye alt 642 m

Pointer 8°06'51.24" N 98°19'52.39" E elev 30 m



Reservoir and Pumping station

swamp

Open-air conveyances

Berm

3,240 metre

300 m

Parallel Taxiway P

Security Perimeter And Service Road



ICAO Standards

- **ICAO, Annex 14**

3.5.1 A runway end safety area shall be provided at each end of a runway strip where code number is 3 or 4

Dimension or RESA

3.5.3 A runway end safety area shall extend from the end of a runway strip to a distance of **at least 90 m** where the code number is 3 or 4

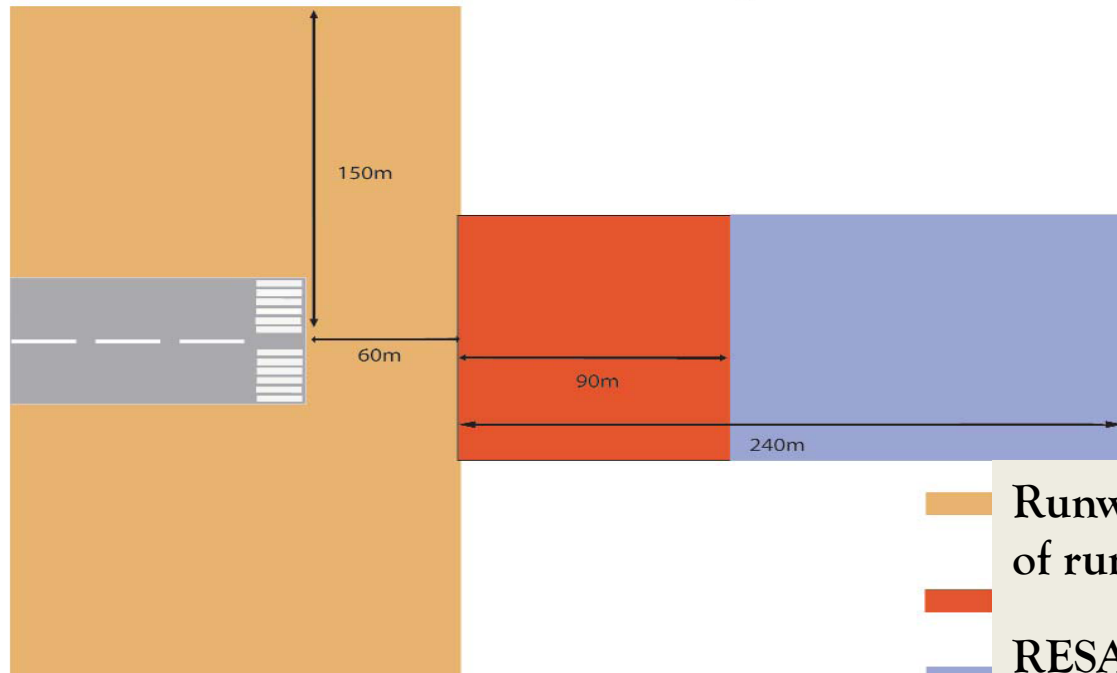
If an arresting system is installed, the above length maybe reduced, based on the design specification of the system subject to acceptance by the state.

➔ 3.5.4 *Recommendation* A runway end safety area should, as far as practicable, extend from the end of a runway strip to a distance of **at least 240 m** where the code number is 3 or 4 : or a reduced length when an arresting system is installed.

Runway End Safety Area

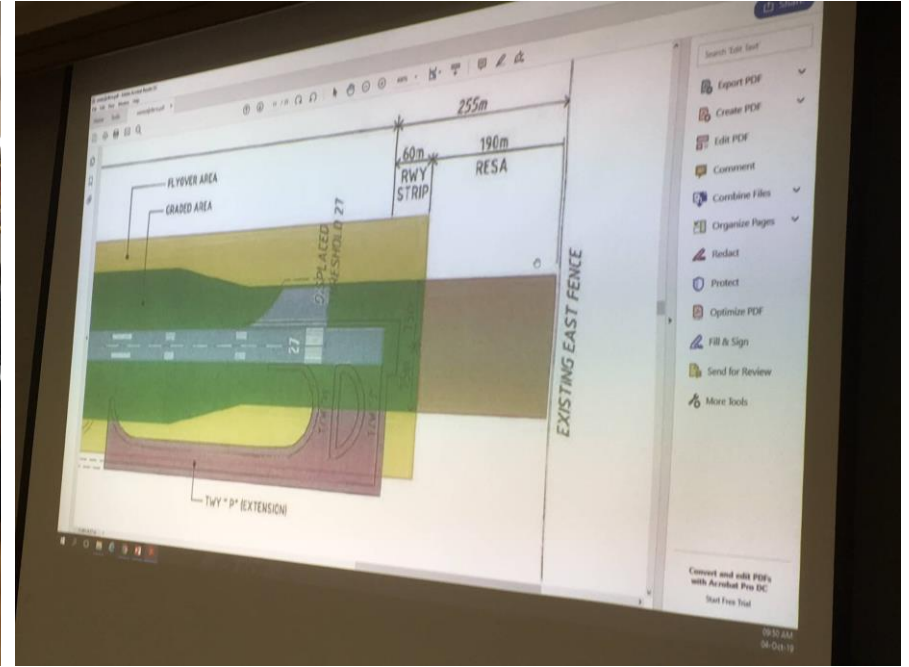
CAAT issues Requirement No.14 on March 2019

RESA Dimensions Code 3 and 4 Runways



- Runway Strip 60 metre from end of runway
- RESA ICAO Standard 90 m
- RESA ICAO Recommendation / Thai Requirement 240 m

Consulting with Thai DCA (CAAT)



Conclusions

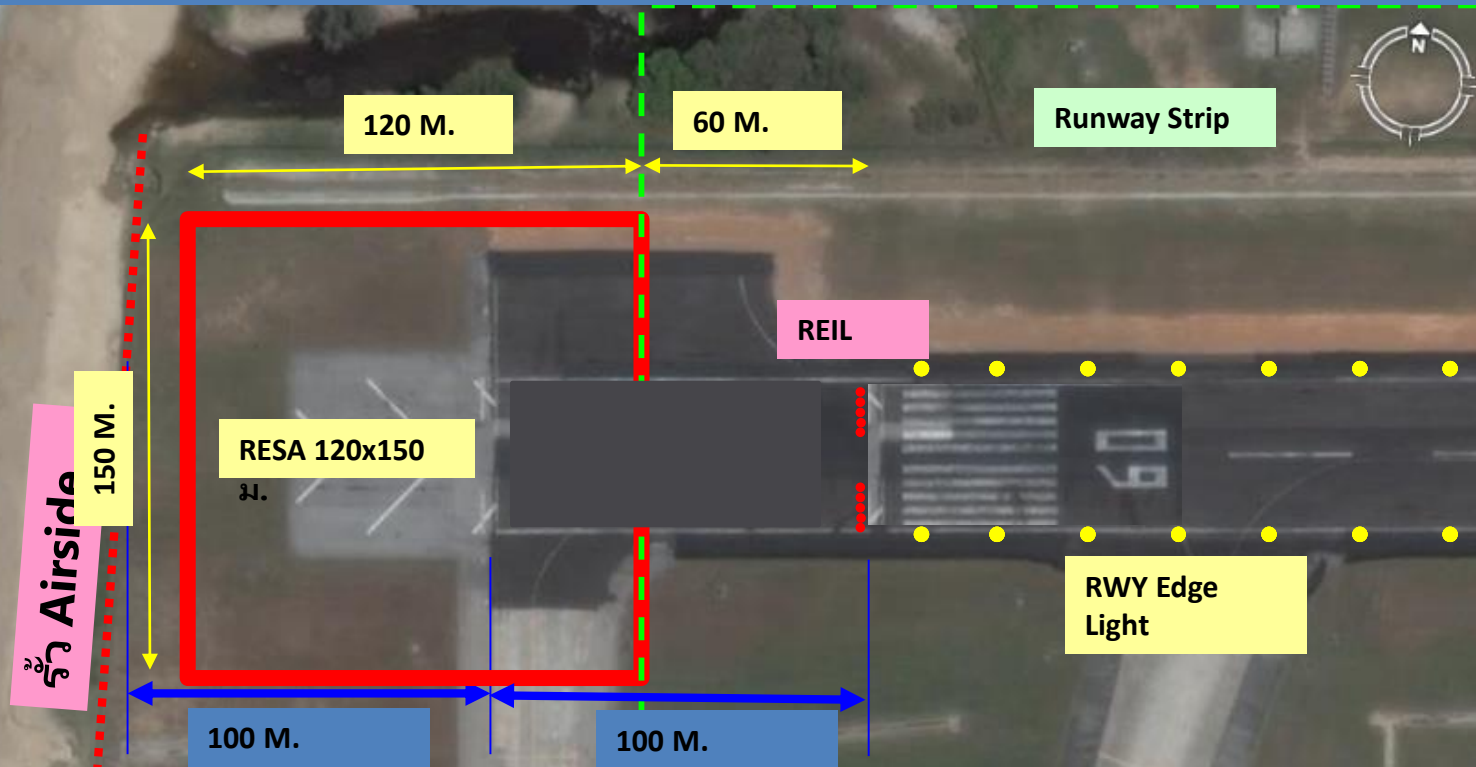
Phase 1 - Continue to construct at least RESA 90 m

Phase 2 - Develop an Aeronautical Study

Phase 3 – 240 m RESA will be revised after phase 2 completed

Approved Corrective Action Plan (CAP)

NEW Runway 27 RESA is 120 m x 150 m (L x W)



- Cancel stopway of Runway 27
- Provide Runway 27 RESA (120 m x 150 m)
- Reduce LDA of runway 27 to 2900 m; TORA compensated by extending RWY on the other side
- Reinstall visual aids

142 m

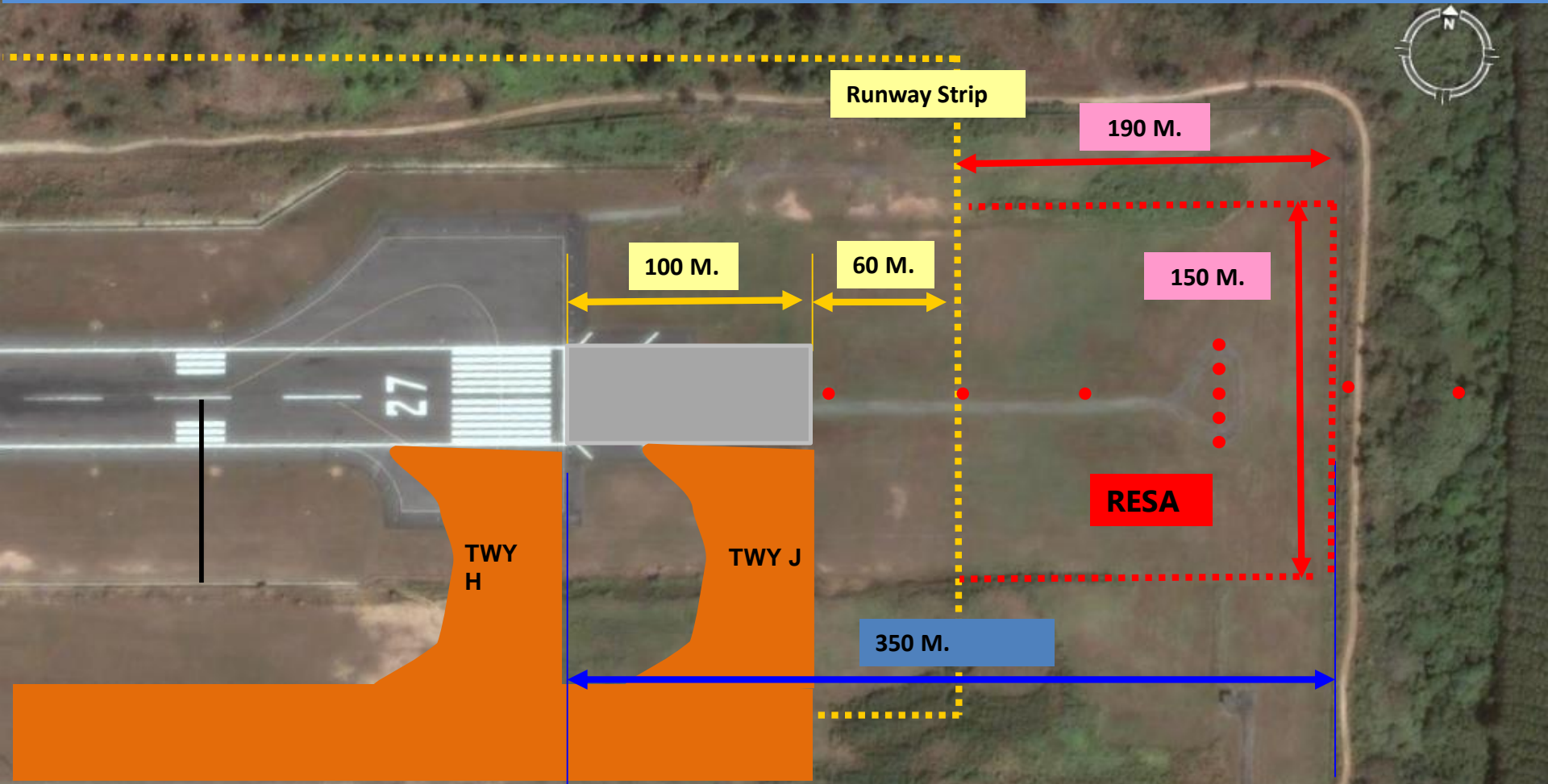
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Streaming 100%

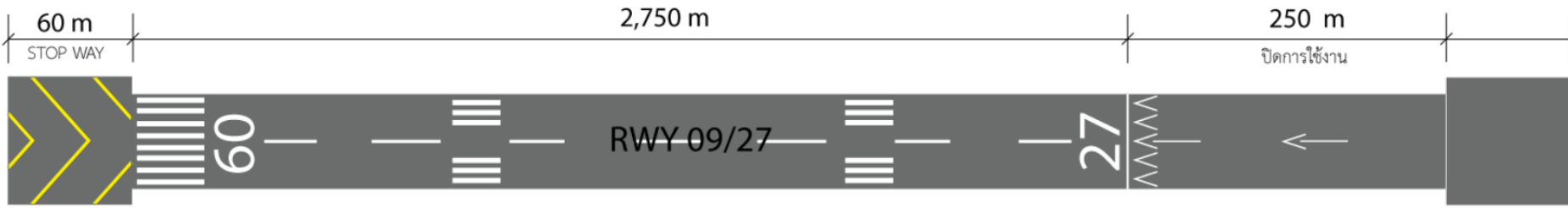
© 2006 Google

Elev alt 496 m

Approved Corrective Action Plan (CAP) NEW Runway 09 RESA is 190 x 150 m (L x W)



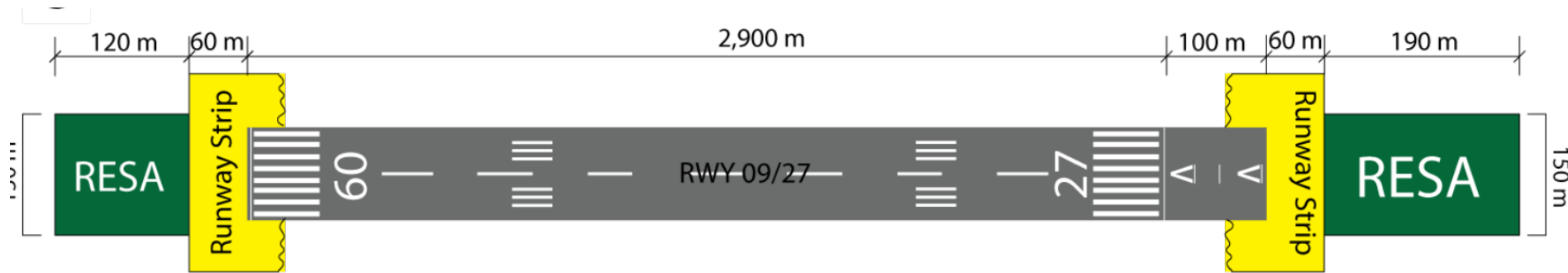
During Construction



Declared Distance	RWY 09	RWY 27
TORA	2,750 m	2,750 m
TODA	2,750 m	2,750 m
ASDA	2,750 m	2,810 m
LDA	2,750 m	2,750 m

Declared Distance will be temporarily affected during the RESAs construction.

After construction



Declared Distance	RWY 09	RWY 27
TORA	3,000 m	3,000 m
TODA	3,000 m	3,000 m
ASDA	3,000 m	3,000 m
LDA	3,000 m	2,900 m

Declared Distance after the construction completed

APANPIRG/31, Dec 2020, Final Report

Status of Deficiency in AOP Field in the APAC region

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Updated 9 Dec 2020

Identification		Deficiencies			Corrective Action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14, Volume I	Thailand	Runway	AGA mission of July 2009	RESA to satisfy Section 3.5 of Annex 14, Volume I requirements.	RESA will be provided at the end of both RWY09 and RWY27 to satisfy Section 3.5 of Annex 14, Volume I requirements.	Airports of Thailand Public Company Limited	Runway End Safety Area will be provided to satisfy Section 3.5 of Annex 14, Volume I requirements. The construction is expected to be completed in 2021.	U
				Remark: - Dimension of RESA RWY09 is 150x190 m. - Dimension of RESA RWY27 is 150x120 m.	The construction is expected to be completed in 2022. Currently, the construction plan has been approved. The budget approval is in progress.			
				Runway strip width insufficient (280m runway strip for precision approach runways in accordance with Para 3.4.5.3 of Annex 14, Volume I.	280m 300m runway strip width for full length of runway will be made available. Except 111.4m length at the beginning of RWY09 (60m strip length before RWY09 threshold plus 51.4m length beyond the threshold), the runway strip width will be extended 150m on the right	Airports of Thailand Public Company Limited	280m runway strip width for full length of runway will be provided. The project is expected to be completed by 2021.	A
					The construction is expected to be completed by 2022. Currently, the construction plan has been approved. The budget approval is in progress.			

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					side of RWY09 centre line and 90.27m on the left side of the runway centre line (due to the marsh near the runway).			
	Krabi Airport	Aerodrome Certification	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Hua Hin Airport	Aerodrome Certification	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	U-Taphao Pattaya International Airport	Aerodrome Certification	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Samui Airport	Aerodrome Certification	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
	Surat Thani Airport	Aerodrome Certification	Effective from 1 Jan 2021	Aerodrome yet to be certified.				A
Annex 14 Volume I PANS-Aerodromes PANS-AIM	AIP	Status of Certification of Aerodromes in AIP	Effective from 1 Jan 2021	Status of certification of aerodromes yet to be published in AIP AD 1.5.				A



Thank You