

8. MODE S TRANSPONDER ID CODE

8.1 General

Global communications, navigation and surveillance systems shall use an individual aircraft address composed of 24-bit. At any one time, no address shall be assigned to more than one aircraft. The assignment of aircraft addresses requires a comprehensive scheme providing for a balanced and expandable distribution of aircraft addresses applicable worldwide.

NOTE: The relevant regulations and documents are ICAO Annex 10 Vol. III and ICAO Doc 8643 Aircraft Type designator.

8.2 Purpose

This chapter is the guideline for staff on the assignment of Mode S Transponder ID Code (24-bit address).

8.3 Processes

8.3.1 Assignment of Addresses

a) For Air Operator/Company/Personal

The 24-bit air craft address (Mode S Transponder ID Code) will be assigned during the issuance of the Certification of Registration (C of R) by Airworthiness and Aircraft Engineering Department, in which the 24-bit will be in the remarks of the C of R.

b) For Government aircraft or Ground facilities/vehicle

- i. After receiving the application for an assignment of 24-bit address (Mode S Transponder ID Code), staff shall review the following documents for completeness and eligibility:
 - Application letter signed by authority/executive with details of Aircraft type, for example, BOEING 747-400, AIRBUS 330-200 and Serial number of government aircraft or;
 - Application letter signed by authority/executive with details of location of facilities or serial number of vehicle.
- ii. Assign 24-bit address (Mode S Transponder ID Code) for Government aircraft or Ground facility/vehicle in accordance with the following principles:
 - Assign the first 9-bit address in accordance with Table 9-1 Allocation of Aircraft Addresses to States in Annex 10 Volume III - communication systems
 - Assign the other 15-bit address from 3 alphanumeric characters (at least 1 numerical characters) which in accordance with following table 1:

A	-00001	I	-01001	Q	-10001	Y	-11001
B	-00010	J	-01010	R	-10010	Z	-11010
C	-00011	K	-01011	S	-10011	1	-00000
D	-00100	L	-01100	T	-10100	2	-11011
E	-00101	M	-01101	U	-10101	3	-11100
F	-00110	N	-01110	V	-10110	4	-11101
G	-00111	O	-01111	W	-10111	5	-11110
H	-01000	P	-10000	X	-11000	6	-11111

Table 1.

- iii. The 3 alphanumeric characters' assignment are categorized into 7 sections as follows:

Section	3 Alphanumeric
1	1AA – 6ZZ
2	A1A – Z6Z
3	AA1 – ZZ6
4	11A – 66Z
5	1A1 – 6Z6
6	A11 – Z66
7	111 – 666

Table 2.

- iv. 3 alphanumeric characters' allocation of Thai Governments are as follows:

NOTE: Refer to DCA letter “สมส ที่ คค 0507/กจร 1972 ลงวันที่ 2 กรกฎาคม 2557”

Unit	3 Alphanumeric
Royal Thai Air Force	F1A – F6Z, E1A – E6Z
Royal Thai Army	A1A – A6Z
Royal Thai Navy	N1A – N6Z
Royal Thai Police	P1A – P6Z
Department of Royal Rainmaking and Agricultural Aviation	R1A – R6Z
Other Government	G1A – G6Z
Vehicle in airport	1AA – 1ZZ
Ground Facilities	111,116 – 666*
Ultralight aircraft	U1A – U6Z

Table 3.

NOTE: 3 characters “112-116” was assigned to Thai Airways.

For example, a Government Aircraft/vehicle with 3 alphanumeric characters' assignment of HS-1AA

- The first 9-bit address is "HS" = "1000 10000" from Table 9-1 Allocation of Aircraft Addresses to States in Annex 10 Volume III - communication systems
- The other 15-bit address is "1AA" = "00000 00001 00001"
- The assigned Mode S Transponder ID Code is "1000 10000 00000 00001 00001"

8.3.2 Notification Letter of Mode S Transponder ID Code Assignment

Staff shall inform the applicant of the assigned 24-bit address by official letter signed by DGCA.

8.3.3 Record of Mode S Transponder ID Code Assignment

Staff shall record information of the 24-bit address (Mode S Transponder ID Code) assignment, Including organisation name, type of aircraft, registration of aircraft/vehicle /equipment, 24-bit address, responsible staff, date of assignment.

NOTE 1: Staff shall complete all processes within 5 working days (Not include applicant's duration in case the document is ineligible or incorrect).

NOTE 2: In case, the document is ineligible or incorrect, the applicant shall correct the document and send it to staff within 10 working days, after the applicant is notified the problem by staff. Otherwise CAAT will denies the request.

NOTE 3: Staff shall use 'Mode S Transponder ID Code Assignment Checklist (ANS-TM-001)' in topic no. 8.3 Processes.

8.4 Flowchart

8.4.1 Process Flowchart

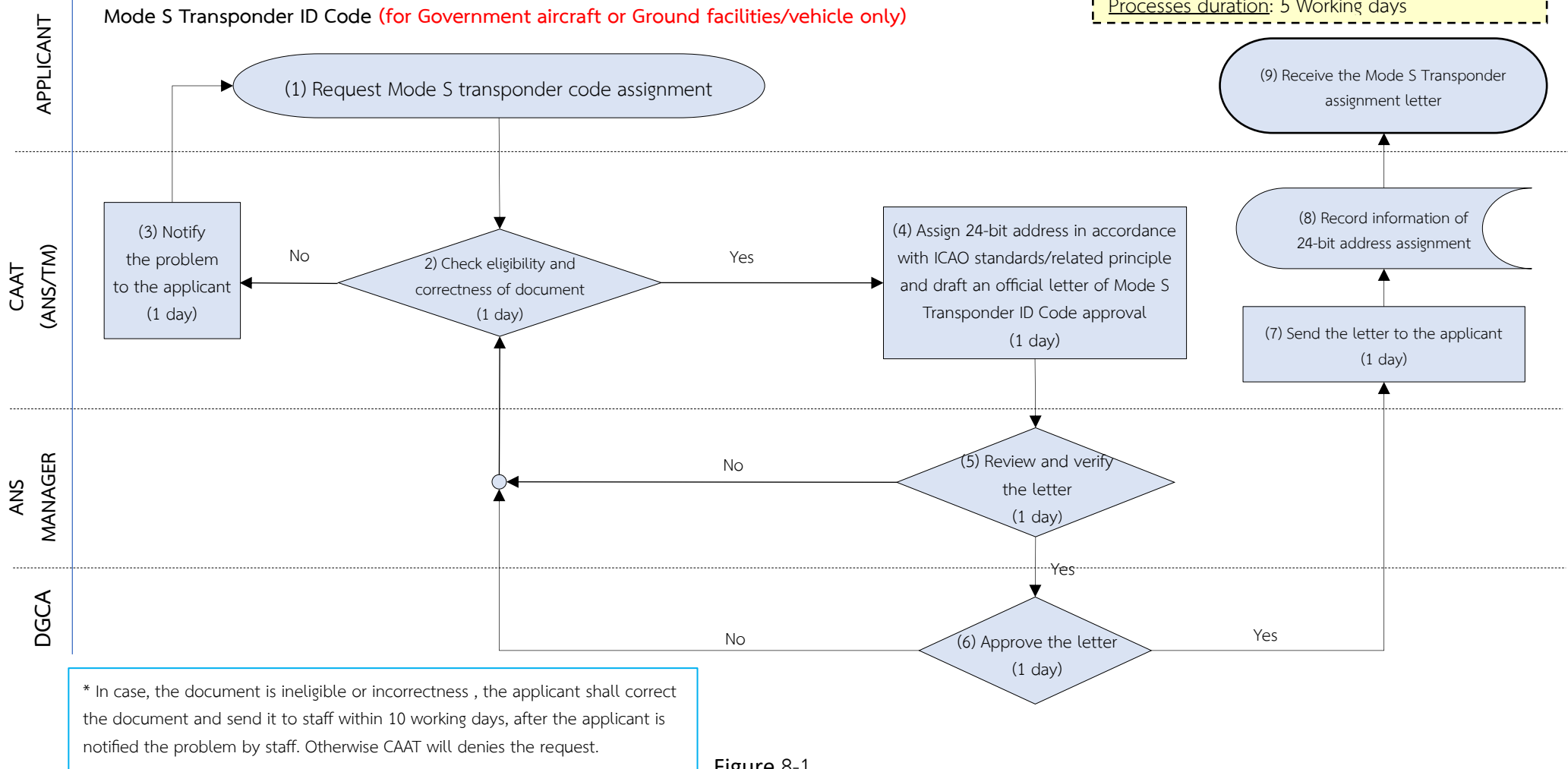


Figure 8-1