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GOVERNMENT OF INDIA CIVIL AVIATION DEPARTMENT DIRECTOR GENERAL OF CIVIL AVIATION

OPERATIONS CIRCULAR

File no AV.14027/17/2018-AT-1

SUBJECT: BANNER TOWING OPERATIONS

1. INTRODUCTION:

In many countries, banner towing is undertaken as an effective means of advertising. Some operators have shown interest in engaging in this activity in India. Before permitting banner towing certain guidelines have to be complied with to ensure that the activity is performed safely and does not cause hazard to public. This circular lays down the guidelines and procedures for performing banner towing operations.

2. APPLICABILITY:

Only aircraft and operator which has been authorized to do Banner Towing shall conduct the aerial work activity. This OC is guidance to Operators to obtain permission and conduct Banner Towing Operations.

3. CANCELLATION:

Airworthiness Advisory Circular No. 03 of 2001.

4. PROCEDURES FOR OBTAINING APPROVAL FOR BANNER TOWING:

4.1 Banner towing shall be performed only by person/ organisation, NSOP holders authorized under CAR Section 3 Series N Part I, for banner towing operations with such aircraft as are entered on the permit/ authorization.

4.2 Engineering Requirements:

421 Only those aircraft will be used for banner towing that have been duly modified for the purpose including tow attachment and release mechanism as per the S.B./mod approved by the country of design/ manufacture or by the DGCA. The C of A of the aircraft will be classified under 'Normal' Category, sub division 'Aerial Work-banner towing'; refers para A of Appendix C of Civil Aviation Regulation Section 2 Series F Part III dated 25th Nov 2014. If the aircraft holds special C of A it should be for 'Restricted Category' for use under such operations. The operator should furnish full details of the modification proposed to be carried out on the aircraft for banner towing operations. This information should include aircraft make and model. The details of the banner design as well as the combination of the aircraft and the banner shall be examined by the DGCA before granting approval.

422 The cockpit should be suitably placarded to indicate approved maximum aircraft speed during banner towing. For this purpose, the maximum aircraft speed, prescribed by the manufacturer for banner towing should be adopted. In the absence of manufacturer's recommendations, the optimum approach speed for the aerial pick up of the banner is 1.1 to 1.2 times the best rate of climb speed for the aeroplane used.

4.3 Weight and Balance of aircraft and Equipment Maintenance Requirements:

- 4.3.1 The weight and balance of the aircraft with banner towing equipment installed on the aircraft shall be prepared by the operator and submitted to DGCA for approval.
- 4.32 Maintenance of the aircraft for banner towing shall be carried out as per Aircraft Maintenance Programme approved by DGCA.
- 4.3.3 The continued airworthiness of the aircraft for banner towing shall be as per CAR M.
- 4.3.4 The safety link which is a weak link for providing safe towing operations should be closely checked following each flight.

4.4 **Operations Requirements**:

- 4.4.1 These operations shall not be carried out over the congested area of a city, town or settlement or over any open air assembly of persons at altitudes lower than 1000 ft above the highest obstacle within a horizontal radius of 2000 ft. of the aircraft. Aerobatic maneuvers shall not be permitted during banner towing operations.
- 4.4.2 Only essential crew members will be carried during banner towing operations. Carriage of passengers on a banner towing flight is prohibited.
- 4.4.3 Banner towing operations shall be restricted to hours between sun-rise and sun- set.
- 4.4.4 Banner towing operations shall be conducted under Visual Flight Rules.
- 4.4.5 The operator shall obtain prior permission from the ATC (Air Traffic Control) to conduct banner towing operations.

- 4.4.6 When banner towing operations are conducted around congested areas due care should be exercised, so that in the event of emergency release of the banner and/ or tow rope, it will not cause undue hazard to persons or property on the surface.
- 4.4.7 The tow rope will be dropped only in a pre-designated area which is at least 500 feet from persons, buildings, parked automobiles and aircraft. If the tow plane lands with the rope attached, due care should be exercised to avoid trailing the rope and endangering the other aircraft in the air, or persons, property or aircraft on the ground.
- 4.4.8 Satisfactory coordination of ground crew signals is critical to banner towing operations. Ground crews lay out the banner, elevate the top of the lead pole for pick up, retrieve the banner after the drop, and, if necessary, signal the correct approach to the pilot. In order to perform these functions satisfactorily, the ground crew should be trained properly by the operator.
- 4.4.9 Operations manual of the operator/ authorized person/entity shall be suitably amended to incorporate banner towing operations prescribing detailed procedures, aircraft makes and models, pilot's qualifications and training, operating limitations, etc.
- 4.4.10 All operating limitations shall be placarded suitably in the cockpit.
- 4.4.11 Procedures, operating limitations and restrictions prescribed by the equipment manufacturer in respect of launching, towing and release and retrieval of banner should be followed for both aeroplane/ helicopter as applicable.

5. Pilot Competency Requirements

- 5.1 The pilot should hold at least a CPL/ CPL(H) with an appropriate category and rating and should have at least 250 hours of flying experience as PIC on the type of aircraft and a minimum of 10 hours on the type within the preceding 90 days. The operator should ensure that the pilot is properly trained and competent to perform banner towing operations.
- 5.2 The pilot should familiarize himself with the procedure of banner towing under the supervision of a 'Qualified Pilot' who himself is competent to perform banner towing operations, and should certify in writing in the pilot's log book that he has read and understood the special provisions and received training in respect of banner towing operations. The 'Qualified Pilot' should also certify and record in the pilot's log book that the pilot has been imparted training in banner towing operations. Pro-forma as given in Annexure 1 may be used for banner tow pilot training. The training should consist of at least 5 pickups and 5 drops of banners of various sizes including at least one pickup and drop of a banner having maximum sized letters or panels intended to be dropped in such operations. This training should have been accomplished within the past one year and he must have executed at least one pick up and drop within the preceding six months for the purpose of recency of operational experience in banner towing.

- 5.3 The pilot should be trained and be proficient in flying clear of the area when there is power loss in engine with banner still attached or the banner released to avoid injury to persons or damage to property on the ground.
- 5.4 If a pilot has not carried out banner towing operation in the preceding 6 calendar months, he should undergo at least one training flight in banner towing on the type of aircraft proposed to be used. The 'Qualified Pilot' should certify that the pilot has undergone adequate training and the same should be recorded in the pilot's log book.
- 5.5 If a pilot has not carried out any banner towing operation in the preceding 12 calendar months, he should undergo complete training in banner towing as per para 5.2.

6. 'Qualified Pilot' Competency Requirements

The 'Qualified Pilot' must undergo training as per para 5.2 and obtain DGCA approval for banner towing operation and for imparting training in banner towing. For this purpose, he shall produce the necessary certificates/ documentary evidence regarding the training.

7. DGCA Approval

DGCA on determining satisfactory compliance with the above requirements may endorse the banner towing operations in the AOP/Authorization of NSOP/ individual as applicable to carry out banner towing operations prescribing the aircraft make and model. If at any time it comes to the notice of the DGCA that unsafe conditions exist or these operations are being carried out jeopardizing safety, DGCA may suspend or revoke or cancel the permission.

> -/Sd/-(Atul Chandra) Chief Flight Operations Inspector For Director General of Civil Aviation

Annexure 1 (Para 5.2 of OC)

BANNER TOW PILOT TRAINING		
NAME OF OPERATOR :	PILOT'S NAME:	
GROUND		
Aircraft Type		
	Date	Instructor
Fuel System		
Aircraft Speeds		
Preflight Procedures (including banner towing procedures) Special Certification Provisions		
FLIGHT		
Full Stalls/ Autorotation (if appropriate)		
Flight At Critically Slow Airspeeds/ <i>Sim</i> <i>Vortex Ring (call out only)</i> Maximum Performance Maneuvers/ <i>LTE</i>		
Sim (Call out only)		
Emergency Procedures:		
 Failure of banner release system Loss of rudder control 		
3) Partial power loss4) Engine failure with banner		
Total Ground Hours		
Total Flight Hours (min 03h dual and 03h P1U/S and evaluation 0:45min)		
	Pick Up and Drops (min 05) Overall Level of Competency:	
Pilot's Signature:	'Qualified Pilot' Signature:	
Date:	Date:	
Licence No. :	Licence No. :	

Training Notes

Item	Syllabus	Banner towing operations
Preparation	Read Aerial Advertising Operations Manual/ SOP	
1	Ground briefing and demonstration	Receiving instruction in ground layout of banner, poles and tow-rope as per Operations Manual or <i>load pick up, transition</i> <i>into flight, back to hover and load drop</i> / SOP.
2	Two hours, dual with 3 correct passes before rope being placed between pickup poles	Receiving instruction in low-level (500 feet) circuits, aerial pick-up of banner and banner dropping procedures as per SOP.
3	One hour, dual	Simulated demonstration of all emergency procedures as per SOP. Engine, airframe and banner limitations.
4	Three hours in command under supervision	Two flights to be carried out in all aspects of display of banner to the public, including operations in a control zone
5	Evaluation	On completion of training a pilot will be evaluated on all aspects of items 1 to 4 above. A level of standard from 1 to 5 will be awarded to the pilot

The pilot will be evaluated on items 1 - 4 as satisfactory or unsatisfactory. Upon completion of all items a level of competency will be determined as follows:

- Level 1: Could not comprehend or follow any aspects of training.
- Level 2: Could comprehend some aspects of training, more training required.
- Level 3: Could comprehend most aspects of training, 3 more hours under supervision required.
- Level 4: Comprehended and completed all aspects of training with a high standard.
- Level 5: Comprehended and completed all aspects of training with the highest standard possible.