CREDAI - MCHI

Ref. No. MCHI/PRES/20-21/010

September 9, 2020

To,

1) Shri. Pradeep Singh Kharola (I.A.S.)
Hon'ble Secretary
Minister of Civil Aviation
'B' Block, Rajiv Gandhi Bhawan,
Safdarjung Airport Area, Jor Bagh
New Delh 110003

2) Chairman
Airport Authority of India
New Delhi

3) Member (ANS)
Airport Authority of India
New Delhi

Sub: Guidelines on Maximum Allowable Penetration of Obstacle Limitation Surfaces in Aeronautical Study Reports

Respected Sir,

1. With rising number of requests for conduct of aeronautical study, it was observed by the Appellate Committee that heights permitted after conduct of aeronautical study were varying in nature. An Expert Committee constituted by the Appellate Committee arrived at a consensus view that the extent of penetration of Obstacle Limitation Surfaces (OLS) allowed through conduct of aeronautical study needs to be **gradual and uniform** to ensure symmetry in permitting such penetration in the overall interest of safety of operations.

2. Accordingly, at the time of finalization of the OLS Guidelines, a fixed height of 90 mtrs which is 2 times IHS surface height of 45 mtrs above the aerodrome elevation level was fixed at the end point of Inner Horizontal Surface which is 4000 mtrs from Runway end or 3535 mtrs from start point of Inner Horizontal Surface. Accordingly, the slope calculation for finalizing the extent of allowable penetration of OLS within IHS was computed as follows :-

$$(90 - 45) / (4000 - 465) \times 100 = (45/3535) \times 100 = 1.27\%$$

3. However, the maximum allowable height of 90 mtrs at the end point of Inner Horizontal Surface does not take into consideration several buildings that have been granted permission earlier within the Inner Horizontal Surface by way of conduct of aeronautical study. As a case in 16 such NOCs issued prior to implementation of OLS Guidelines are mentioned below :-

NOCID	Distance from Runway End (mtrs)	Permitted Height (AMSL)	Height above Aerodrome Elevation (AGL)	Slope	Increased height vis-à-vis Current OLS
Mum/06/264	4510	124.00	112.10	1.66%	1.24
Mum/313-I	4400	120.00	108.10	1.60%	1.77
20012/442/04	2980	110.00	98.10	2.11%	21.16
20012/424/04	3136	110.00	98.10	1.98%	19.18
20012/266/07	2389	88.49	76.59	1.64%	7.16
20012/5/09	2420	82.50	70.60	1.31%	0.77
20012/10/09	2801	88.68	76.78	1.36%	2.11
20012/29/2010	3440	108.60	96.70	1.72%	13.92
20012/48/10	2728	97.00	85.10	1.77%	11.36
20012/131/10	3352	110.00	98.10	1.84%	16.44
20012/1011/07	2641	89.00	77.10	1.48%	4.46
20012/166/2010	1897	90.12	78.22	2.32%	15.03
20012/85/2011	2889	95.27	83.37	1.58%	7.59
20012/64/2011	2547	87.40	75.50	1.46%	4.06
20012/31/2011	4186	125.00	113.10	1.83%	15.56
20012/75/2011	3440	108.00	96.10	1.72%	13.32

4. All the above projects have been completed and like several other structures that have been constructed in the IHS beyond 90 meters, prior to the OLS Guidelines, they have penetrated the 1.27% slope permissible in the OLS Guidelines.

5. It is suggested that slope calculation in OLS Guidelines should take into consideration the additional heights granted to all such buildings and the slope calculation be done by considering the maximum penetration already permitted prior to this OLS Guidelines. Based on the above slope of 1.27% currently considered for OLS in IHS ought to be increased to 2.32% i.e. the highest of the manmade structures permitted by the AAI in the HIS and accordingly the maximum permissible height in the HIS should be uniformity calculated at 2.32% instead of 1.27%. This shall ensure that there is "gradual and uniform" development in the real sense which takes into consideration the already permitted structures in the IHS. We are enclosing hereto a graphical representation of the existing authorised structures permitted by AAI prior to the OLS Guidelines which are already piercing the 1.27% slope. This clearly demonstrates that the OLS Guidelines for Mumbai in particular has not taken into consideration the existing ground reality.

6. Alternatively, a uniform slope calculation from the start point of Inner Horizontal Surface until the start point of the Outer Conical Surface which is 9100 mtrs from the runway end needs to be taken into consideration to derive the extent of allowable penetration of OLS :-

(300 - 45) / (9000 – 465) x 100 = (255/8635) x 100 = 2.95%

Thanking you,

Yours Faithfully,
For CREDAI-MCHI

Deepak Goradia
President

Pritam Chivukula
Hon. Secretary