

**IAF PROCEDURE FOR ISSUE OF NOC FOR
CONSTRUCTION OF AERODROMES, HELIDROMES, TRANSMISSION LINES,
BUILDINGS AND OTHER STRUCTURES AROUND IAF AERODROMES**

INTRODUCTION

1. Economic growth in association with infrastructure development has witnessed a large number of Govt agencies, PSUs, private companies and individuals seeking NOC for construction, erections/installations of different nature for various development projects around IAF airfields. The procedure for obtaining NOC is as given in subsequent paragraphs: -

APPLICABILITY

2. The Indian 'Aircraft Act, 1934' Section 9A empowers the Central Government to restrict the construction of buildings and other structures within a radius of 20 Kms of all aerodromes. GoI, MoD letter No F.2 (9)/65/D (Air-II) dated 04 Jul 1966 prescribes the procedure for Air HQ to examine proposals for constructions around IAF aerodromes and make recommendations to MoD for issue/denial of No Objection Certificate (NOC). Over the years, contents of this letter have been elaborated, modified and notified through Gazette notifications. The current Gazette notification on the subject is Government of India, Ministry of Civil Aviation Notification SO 84 (E) dated 14 Jan 2010. The criteria employed in this notification are based on Obstacle Limitation Surfaces as discussed in ICAO Annex 14, and other ICAO documents such as Annex 10 and Doc 8168.

3. Proposed constructions could relate to the following:-

- (a) New Aerodromes/Helipads/ Aircraft Operating Surfaces.
- (b) Buildings/Factories/Chimneys/ Industrial Complexes etc.
- (c) Transmission lines and towers.

4. Due to specific military aviation requirements, especially low level training missions; it is necessary that constructions of structures within IAF's Local Flying Areas (LFAs) are notified to IAF. Accordingly, all proposals for construction within LFAs should be processed in order to identify obstacles for low flying aeroplanes and helicopters and to update maps and information to aircrew. Additionally, IAF and other government aircraft are also called upon for extensive disaster relief and aid to civil operations in any part of the country. Information on existence of constructions/obstructions even beyond LFAs is of vital importance in view of military aviation safety. Lack of notification and/or visual identification marking has led to many accidents in the past. All Transmission Lines, Transmission Line structures and cables strung across valleys, including Ropeways outside Local Flying Areas, which are more than 45 meters above ground level, shall be notified to Air HQ prior to commencement of construction work along with an undertaking that structures and cables will be appropriately marked and lighted in accordance with IS 1563 (including amendments). This notification will be made to D Ops (ATS), Room No 311 B, Air HQ, Vayu Bhawan, Rafi Marg, New Delhi by registered AD post. In addition, Govt of India has placed a restriction on installation of Wind Turbine Generators (WTGs) within 10 km radius of Air Defence Radar site (including Primary Surveillance Air Traffic Services Radar) vide GoI letter MoD No. Air HQ/S 17726/4/ATS (PC-DXLI)/Dy No.74/F/2010/D (Air-II) dated 18 Feb 10. The GoI letter is annexed as Appendix 'G.'

5. Cases where a proposed project is falling within permissible limits but is likely to affect aircraft operations or performance of Navigation aids may be denied NOC or issued with NOC with restrictions.

PROCEDURE

6. Applicants are required to forward their proposals in the specified format as given in different appendices depending on the type of proposal. All papers and correspondence shall be forwarded by post. No physical deposits will be accepted. Application should be submitted by the applicant to the nearest Air Force Station (SATCO) in single copy, controlling Command HQ (CATCO) in single copy and Air HQ (DATS) in duplicate simultaneously. **However all applications seeking NOC for Power Projects (Power Generation projects i.e. Wind Turbine Generators, Thermal/Hydro Power Projects only) shall be forwarded only through D (Coord) section, 'B' Wing, Sena Bhawan, Ministry of Defence. No application for Power Projects shall be accepted directly by the station/Command HQ/Air HQ.** If the application for NOC is for alterations/modifications of existing structure, a copy of the earlier NOC for original structure is to be enclosed with complete fresh application. All applications for proposals falling within local flying areas shall be processed at Stations, Command HQ and Air HQ within the specified time frames. Subsequently, comments will be forwarded to MoD by Air HQ for issuance of NOC or otherwise. During the processing of the proposal Station and Command HQs may correspond with the applicant(s) if required to seek additional information or clarifications with intimation to Air HQ. Applications are required to be submitted as follows: -

(a) **Construction of New Aerodromes and Helipads.** Applications with respect to Aerodromes and Helipads are required to be forwarded in the format as given in Appendix 'A' (Original & a copy to Air HQ and one copy each to concerned Command HQ and Station) to the addressees given in para 6 above.

(b) **Installation of Transmission Towers, Mobile Network Communication Towers, Microwave Link Towers, TV Towers, FM Transmission Towers, Power Lines and Cables, Com & Nav facilities etc.** Applications for installation of Power Transmission Towers, laying of Transmission Lines, Cables etc should be forwarded in the format as given in Appendix 'B' (Original & one copy to Air HQ and one copy each to concerned Command HQ and Station). All cases for NOC for Mobile Network Communication Towers, constructions will be dealt as per existing orders of Ministry of Communication and IT.

(c) **Construction of Buildings/Chimneys.** Applications for construction of Buildings/Power plants/Chimneys etc are required to be forwarded in the format as given in Appendix 'C' (Original & one copy to Air HQ and one copy each to concerned Command HQ and Station). For Power projects/plants/Associated Chimneys all four copies shall be forwarded through D (Coord), MoD only.

(d) **Undertaking by the Applicant.** Undertakings on Rs.10/- Stamp Paper as given in appendices D1, D2 & D3 to comply with various legal provisions should be forwarded by the applicant. An undertaking on a plain paper furnishing information on likely presence of foreign nationals as given in Appendix 'E' including nil submission should also be forwarded by the applicant. In addition all proposals where the entire or part of the project is falling within a radius of one Km of perimeter of IAF aerodromes, shall also furnish certificate as given in Appendix 'F'.

TIME FRAME

7. As mentioned at the beginning large numbers of proposals seeking NOC are received by IAF. As a statutory body, IAF is responsive to the needs of Indian economy in terms of processing such cases expeditiously. In view of this, the **provisional** time frames by which inputs/comments are forwarded to MoD will be as follows:

Infrastructural projects. 45 working days

Non-Infrastructural projects. 70 working days

Note 1. The processing period mentioned above purely depends on premise that no further clarifications, additional and/or deficient information/application papers are required and proposal does not require additional examination due to its likely effects on IAF operations.

Note 2. Infrastructure cases of national value would be given priority over commercial/residential/private projects.

Note 3: *The time frames do not include the transit time between stations, Command HQs, Air HQ and applicant as applicable. The time frames also do not cover the processing time at MoD to dispose the case. **The time line shall only be stated to commence from the day complete application in all respects has been received by the concerned field unit.** The time spent in correspondence towards seeking clarifications, additional and/or deficient information/papers and time taken by the applicant in furnishing response shall also be excluded from the time limit specified above.*

Note 4: The examination of a proposal can only be concluded when the complete application has been received in prescribed format. The application shall be closely scrutinized for completeness at the time of receipt by Station/Command HQ/Air HQ as the case may be. In case it is found incomplete in **any respect, the case shall not be registered and application shall be returned.** While returning the application details of deficiency shall be explained.

ISSUANCE OF NOC

8. Proposals, on completion of the examination process will be forwarded to Ministry of Defence (MoD) by Air HQ. MoD will finalize the case and forward the disposal to Air HQ for further intimation to the applicant. NOC or intimation of Non-issuance of NOC by the MoD will be dispatched to the applicant by Air HQ through registered post. No request for receipt of NOC by hand shall be entertained.

VALIDITY OF NOC

9. **The NOC issued shall be valid for five years from date of issue.** If the construction, for which NOC has been issued, does not complete within five years of issue or found to be in deviation from the original proposal, the NOC shall be treated as cancelled and the applicant will be required to obtain fresh NOC for the proposal. It will be the responsibility of the applicant to reapply for the same.

MONITORING

10. One of the conditions specified in the NOC requires applicant to notify the concerned Station of the **commencement** and **completion** of the project. Subsequent to the issue of NOC by MoD, the concerned Station authorities shall **monitor** the progress of such construction. Deviations observed shall be taken up with local civil administration for corrective action. Where necessary the matter would be taken up with MoD for revoking the NOC. The aspects which would be monitored are as follows:-

- (a) The location / site are as per NOC.
- (b) The expanse and height are in conformity with the terms of NOC.
- (c) Completed projects have been marked / lighted as required.
- (d) The timely notification on completion has been intimated to concerned Air Force Station/Command HQ.

11. Any Queries may be addressed to

NOC Cell
D Ops (ATS)
Room No 311 B
Air HQ (Vayu Bhawan)
Rafi Marg
New Delhi – 110011

Or Contact on Telephone **between 1600 hrs to 1700 hrs only** from Monday to Friday at
011-23060231/23010231 Ext 5216

Appendix 'A'

Refers to Para 6 (a) of NOC Procedure

APPLICATION FOR AERODROME/ HELIDROME APPROVAL

(In four copies)

1.	(a) Name and Address of the Applicant for dispatch of NOC.(PIN code is mandatory) (b) Telephone Number(s) (mandatory) Fax Number.	
2.	Nationality of the Applicant.	
3.	(a) Location of the proposed aerodrome/helipad site along with distance and bearing from the nearest IAF aerodrome. (b) Latitude and Longitude of the place in six digits. (c) State / District in which proposed location is situated.	
4.	Name by which aerodrome is to be known in all future references.	
5.	Location map of suitable scale having Latitudes and Longitudes clearly highlighting the proposed site and duly authenticated by Survey of India/ Municipal Authority/ relevant Govt Agency must be enclosed.	
6.	Type/category of aerodrome proposed to be constructed (ICAO Aerodrome Reference Code)	
7.	Length of runway and its surface. (Paved/unpaved)	
8.	Proposed runway orientation.	
9.	Elevation of the site.	
10.	Proposed navigational aids and other facilities.	
11.	Details of communication facilities, including VHF-RT, land lines, fax, etc.	
12.	Type of Air Traffic Services and watch hours.	

13.	Type of flight operations i.e. VFR/IFR and associated airspace requirements	
14.	Type of aircraft intended to use the aerodrome	
15.	Purpose of operation of aerodrome i.e. private/commercial.	
16.	Firefighting and Rescue services to be made available in terms of Airport Category	
17.	Availability of Medical facilities	
18.	Undertakings as applicable including Appendix 'E' on presence or likely presence of foreign nationals	

Certified that the information given above is correct to the best of my knowledge

Date:

Place:

Signature and Name of the Applicant

Note: Application, complete in all respects with all the certificates, maps (with respect to nearest Air Force Station / Unit), sketches and relevant undertakings (on Rs. 10/- stamp paper where applicable) should be submitted in four copies(Original and a copy to Air HQ, one copy each to concerned Command HQ and Station).

Appendix 'B'

Refers to Para 6 (b) of NOC Procedure

APPLICATION FOR INSTALLATION OF TRANSMISSION TOWERS, POWER LINES AND CABLES AROUND IAF AERODROMES/INSTALLATIONS.

1.	(a) Name and Address of the Applicant for dispatch of NOC. (PIN code is mandatory) (b) Telephone Number(s) (mandatory) Fax Number	
2.	Nationality of the Applicant.	
3.	(a) Height of each transmission tower. (b) Vertical section plan of structure. The details should include any attachments of any description such as lightening arresters etc located on top of super structure along with maximum height.	
4.	Six digit co-ordinates (Latitude/Longitude) and elevation of each site of the transmission tower and commencement and termination point of the transmission line.	
5.	The site marked and authenticated by Survey of India/ Municipal Authority/ relevant Govt Agency on a Suitable map having Latitudes and Longitudes and showing the full extent of the transmission line (from beginning to end).	
6.	Undertaking to comply with provisions of IS 5613 and / or ICAO Annex 14.	
7.	Undertakings as applicable including Appendix 'E' on presence or likely presence of foreign nationals.	
8.	Six digit co-ordinates (Latitude/Longitude) of the structure nearest from IAF establishment along with distance and direction.	

Certified that the information given above is correct to the best of my knowledge.

Date:

Place:

Signature and Name of the Applicant

Note: Application, complete in all respects with all the certificates, maps (with respect to nearest Air Force Station / Unit), sketches and relevant undertakings (on Rs. 10/- stamp paper as applicable) should be submitted in four copies. (Original and a copy to Air HQ, one copy each to concerned Command HQ and Station).

Appendix 'C'

Refers to Para 6 (c) of NOC Procedure

**PROFORMA FOR DETAILS OF CONSTRUCTION OF POWER PLANTS
BUILDINGS/FACTORY CHIMNEYS ETC AROUND IAF
AERODROMES/INSTALLATIONS**

1.	(a) Name and Address of the Applicant for dispatch of NOC. (PIN code is mandatory) (b) Telephone Number(s) (mandatory) Fax Number	
2.	Nationality of the Applicant.	
3.	Location of site (including Khasra/Khatha/Survey No./Plot no.	
4.	Co-ordinates of the site / building in Six digit figures of Latitude and longitude.	
5.	Name of the IAF Airport for which NOC pertains to with direction and distance from proposed site.	
6.	(a) Height of the structure. (b) Type of structure with vertical section plan. The height and structure details should include any attachments of any description such as lightening arresters etc located on top of super structure along with maximum height.	
7.	Location plan on a map of suitable scale having latitudes and longitudes and clearly highlighting the site of proposed structure and duly authenticated by Survey of India/ municipal authority/ relevant Govt agency must be enclosed.	
8.	Elevation of the site (AMSL) duly authenticated by the Survey of India/municipal authority/relevant Govt Agency where the building structure is proposed.	
9.	Elevation of the highest point of the proposed construction {Sl. No. 6(a)+8}	
10.	If the structure proposed is a factory/power house, type of fuel proposed to be used in the furnace is to be given.	
11.	Garbage/waste disposal plan (Provision of garbage treatment plant is mandatory if the site is 10 km or less. If the site is beyond 10 Km, closed containers are to be provided.	
12.	Undertakings as applicable including Appendix 'E' on presence or likely presence of foreigners.	

Certified that the information given above is correct to the best of my knowledge.

Date:

Place:

Signature and Name of the Applicant

Note: Application, complete in all respects with all the certificates, maps (with respect to nearest Air Force Station / Unit), sketches and relevant undertakings (on Rs. 10/- stamp paper as applicable) should be submitted in four copies. (Original and a copy to Air HQ, one copy each to concerned Command HQ and Station except Power Projects which will be forwarded through MoD).

Appendix 'D1'

Refers to Para 6 (d) of NOC Procedure

FORM IA

UNDERTAKING

I/We _____ the applicant(s) for the proposed construction at _____ do hereby undertake.

(a) Not to complain/claim compensation against aircraft noise, vibrations, damages etc to me/us or to the occupants of the proposed construction due to aircraft operations at or in the vicinity of the airport.

(b) That no radio/television aerial, mast, lightning arresters, vent pipes, overhead water tanks or structures of any description will project on super structure, which are not indicated in the submitted drawings.

(c) Not to commence the proposed construction before grant of NOC.

Signature, Name and address of the Applicant

Signature, Name and address of 1st witness:

(1)

Date:

Place:

Signature, Name and address of 2nd witness:

(2)

Date:

Place:

Appendix 'D2'

Refers to Para 6 (d) of NOC Procedure

FORM-IB

UNDERTAKING

I/We _____ do hereby undertake that I/We will only use oil fired, electric furnace or any other type of fuel in my/our factory/industrial unit that will not cause smoke hazard (Applicable to Industrial Units & Chimneys located within a radius of 08 kms of airport).

Signature, Name and address of the Applicant

Signature, Name and address of 1st witness:

(1)

Date:

Place:

Signature, Name and address of 2nd witness:

(2)

Date:

Place:

Appendix 'D3'

Refers to Para 6 (d) of NOC Procedure

UNDERTAKING

I/We _____ do hereby undertake to provide appropriate obstruction markings and lightings as specified in Chapter 6 of ICAO Annex 14 and IS 5613 as amended from time to time and shall follow such other additional measures/precautions/conditions including periodical maintenance/repairs as stipulated in the NOC.

Signature, Name and address of the Applicant

Signature, Name and address of 1st witness:

(1)

Date:

Place:

Signature, Name and address of 2nd witness:

(2)

Date:

Place:

Appendix 'E'

Refers to Para 6 (d) of NOC Procedure

**DETAILS OF FOREIGN NATIONAL(S) EMPLOYED/LIKELY TO BE EMPLOYED
IN THE PROPOSED PROJECT**

Sl. No.	Name of foreign national	Nationality	Sex	Passport No
1.				
2.				

Date:

Place:

Signature, Name and address of the Applicant

Note: A clear copy of the pages of the passport showing relevant details for each individual should be attached with the details mentioned above.

Appendix 'F'

Refers to Para 6 (d) of NOC Procedure

CERTIFICATE

1. I/We, _____ (Name/s), the applicant(s) for the proposed construction at _____ (full address of the project site) furnish following details with respect to the proposal submitted by me/us.

- (a) Plot no/Survey no. _____
- (b) Maximum Height (Meters) of the construction including super structure if any, above ground level _____.
- (c) No of floors proposed _____.
- (d) Shortest distance in meters between outer most part of the proposed construction and the nearest point of the perimeter of the IAF establishment _____.
- (e) Shortest distance in meters between boundary of the proposed construction site and the nearest point of the perimeter of the IAF establishment _____.
- (f) Layout Drawing by a registered architect showing in different colour codes, the relevant portion of IAF area, adjacent protected zone(s), relevant area of the proposed site, portion of proposed construction in protected zone, if any, along with dimensions of the proposed site and distance from the nearest point of perimeter of IAF establishment.

2. I/We also certify that information provided above is true to the best of my/our knowledge. In case it is found to be in error or in variance at a later date, the decision of Defence authorities including any restrictions shall be binding on me/us and I/we shall not contest the decision.

Signature(s) _____

Name(s) _____

Address(s) of the Applicant(s)

COUNTERSIGNED

(By Municipal Authority/Relevant Govt Authority)
With Office Seal

Appendix 'G'

Refers to Para 04 of NOC Procedure

MoD letter on WTG

No. Air HQ/S 17726/4/ATS (PC-DXLI)/

Dy No. 74/F/2010/D (Air II)

Government of India

Ministry of Defence

Dated the 18 Feb 2010

OFFICE MEMORANDUM

Subject: **RESTRICTION ON INSTALLATION OF WINDMILLS (wtg)
AROUND AD RADAR STATIONS.**

The undersigned is directed to refer to the subject mentioned above and to say that Air HQ has informed that M/s Enercon (India) Ltd has installed windmills in the close vicinity of one of IAF Air Defence Radar Station – Samana, Gujarat. The station experienced degradation in the performance of the radar after these windmills came up. While ascertaining the reasons for poor performance and the possible affect of windmills on its performance, the station came upon a study carried out by MoD, UK. The important extracts from the study report is given below:

- (a) WTGs installed in line of sight of the antenna upto a distance of 7 km affect the performance of the primary radar.
- (b) The nacelle of a WTG will appear to the radar as a virtually stationary object even when rotating.
- (c) The turbine blades are large, aerodynamically shaped structures that operate on the same principle as the wing of an aeroplane. The significant physical size of the turbine blades results in a substantial RCS target irrespective of whether the blades are viewed face on or edge on by radar. The tip velocities for these blades fall within a speed range applicable to aircraft. Consequently, the turbine blades will appear to radar as a moving target of significant size if they are within the radar line of sight.
- (d) Trials undertaken by the UK MoD were conducted to understand the characteristics and impacts of the radar interference observed immediately following construction of a wind farm consisting of fourteen 300 kW wind turbines located about 7 km away and in the radar line of sight of a Watchman ATC radar. The significant interference that was being observed in the radar primary surveillance mode of operation had led to degradation in detection performance.
- (e) Trial was structured to focus on the shadowing effect that the turbines could have on targets just above or behind wind farm, to estimate the RCS of the turbines and to investigate the Doppler shift they would produce.
- (f) The primary conclusion of that study was *“wind turbines cause interference to primary surveillance radars. The responses appear as valid targets on the radar display. Responses cannot be inhibited using normal MTI based techniques since they are generated by a moving structure”*.

(g) Observation during the trial showed significant obscuration of primary radar returns above wind turbines.

(h) The results provided incontrovertible evidence that the ability to track aircraft by primary radar return was degraded over wind farm.

(j) The trial established that there is significant operational impact of wind turbines in line of sight of Air Defence (AD) radars.

(k) Where a target aircraft does not squawk SSR it is highly likely that the associated track would drift when the aircraft overflies a wind turbine farm or flies through the shadow area.

(l) Line of sight was assessed to be the only relevant criterion when considering objections to wind farm development.

(m) Degradation in ability to track aircraft and the appearance of false returns occurred at all altitudes.

2. Importance of Air Defence Radars in early detection of enemy aircraft intrusion needs no emphasis. In order to ensure that the performance of the Air Defence Radars is not affected, there is a necessity to impose a restriction on installation of windmills upto a distance of 10 km around static AD Radars. For effective implementation of such restriction, inclusion of the following provision in MoCA gazette 1589E is necessary.

“No wind turbine generator/s shall be installed upto a distance of 10 km in line of sight of the radar antenna of all Static Air Defence radars.”

3. Location of the Static AD radars cannot be listed in a gazette due to security reasons of the installations. It will be the responsibility of AF Stations having AD radars to ensure the restriction on installation of windmills. When any IAF station notices installation of windmills within 10 km, as mentioned in para 1 above, the company/agency executing the work will be informed of the restriction and asked to obtain NOC from MoD. On inclusion of the above provision in the gazette, all Static AD Radar Stations will be informed of this gazette provision for implementation.

4. In view of the above, it is requested to include the above clause in the MoCA gazette 1589E. Action taken may be intimated to this Ministry at the earliest.

-s/d-

(Anjali Singh)

Deputy Secretary to the Govt. Of India

Ministry of Civil Aviation
Shri Alok Sinha, JS
Rajiv Gandhi Bhavan,
Safdarjung Airport,
New Delhi – 110 003