No Objection Certificate Application System (NOCAS)

esri India

Business Context

Airports Authority of India (AAI) manages a total of 125 airports, which include 11 international airports, eight customs airports, 81 domestic airports and 25 civil enclaves at defence airfields. AAI also provides Air Traffic Management Services (ATMS) over the entire Indian air space and adjoining oceanic areas with ground installations at all airports and 25 other locations to ensure safety of aircraft operations. AAI provides air navigation services over 2.8 million square nautical miles of air space. The main functions of AAI include construction, modification and management of passenger terminals, development and management of cargo terminals, and maintenance of apron infrastructure including runways, parallel taxiways, etc AAI also issues no objection certificates for building and mast construction in and around an airport (which is a statutory requirement) to ensure that flight path is free of any obstacles.

Challenges

- Data collection for 100+ airports followed by geo-referencing to the proper co-ordinate system

- Creation of more than 30 GIS surfaces for impact analysis and 'zero tolerance' user visualisation

- Eliminate any error possibilities through automation of impact analysis by incorporating various rules (over 70 complex formulae) as per AAI guidelines

Solution

NIIT (Esri India) implemented an online GIS-based solution 'NOCAS' for automating the steps involved in obtaining a no objection certificate that substitutes the earlier manual process followed by various NOC departments of AAI. Key features include:

- Web-interface for general public to register an application and monitor its status

- GIS component performs the permissible height calculations for building and masts

- Geo-database incorporates landbase features (road, railway, locality, water body, etc.) and a virtual height limitation surfaces pertaining to aerodome and communication, in and around the airport

- Role-based access to different categories of staff within AAI for servicing the applications

> Our web-enabled GIS-based No Objection Certificate Application System (NOCAS) has simplified the overall experience users have in getting a NOC certificate. The overall NOC process is now more efficient, accessible, accurate and responsive.
>
> B S Dalal
> General Manager - IT, AAI

- The system is based on Esri technology – ArcGIS Server 9.3, ArcGIS Desktop 9.3 and ArcSDE 9.3 with SQL Server 2005

Key Message

Ensuring efficient, responsive and transparent delivery of services.

Benefits

- Highly substantial reduction in a complete NOC application processing time from earlier period of a month or two with higher accuracy and minimal human intervention

- 24X7 accessibility

- Reduction in delays in response to grievances related to NOC and status verification facility removes intermediary hurdles resulting in higher transparency

- GIS maps used in NOCAS are now widely used for various planning purposes by AAI i.e. aeronautical study, etc.

About Esri India

Esri India (NIIT GIS Limited) is an end-to-end Geospatial Information Systems (GIS) based solutions provider and enjoys a leadership position in India with a large customer base of Esri suite of software. Esri India also provides ArcFM Utilities solutions from Schneider Electric (Telvent), Network Engineer Telecom solutions from Ericsson (Telcordia), Cellular Expert from HNIT-Baltic, Cityworks from Azteca Systems and ENVI Image Analysis and Processing solutions from Exelis VIS to its customers.

Established in 1996, Esri India is a strategic joint venture between Esri Inc., USA and NIIT Technologies Ltd., India.

An online GIS based No Objection Certificate Application System automates the height clearance process based on coordinates provided by the applicant.

Contact

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