

GAIL (India) Limited

GAIL launches Bhuvan- GAIL Portal Project on satellite monitoring of Pipeline ROU

New Delhi, 26th November 2015 : In order to address the pipeline security concern, GAIL (India) Limited in collaboration with National Remote Sensing Centre (NRSC), a unit of Indian Space Research Organization (ISRO, has launched an innovative surveillance geo-portal called “Bhuvan-GAIL portal” utilizing space technology for its pipeline application in the presence of Shri B C Tripathi, Chairman GAIL (India) Limited, Dr. V K Dadhwal, Director NRSC, ISRO, Shri M Ravindran, Director (HR)- GAIL, Dr. Ashutosh Karnataka, Director (Projects)- GAIL, Dr. P G Diwakar, Dy. Director, NRSC, ISRO, Dr. Venugopal Rao, Head Urban Studies, NRSC, ISRO, Shri R K Kashyap, Executive Director (R&D) GAIL and senior officials from GAIL and ISRO.

Despite all challenges, GAIL has proved that the space technology can be efficiently used for monitoring the pipeline Right of Use (RoU). GAIL has over 13000 Km of Pipeline network wherein monthly monitoring of pipeline ROU at present is being carried out through Helicopter surveys. GAIL will start live satellite monitoring of the pipeline RoU by January 2016 and is also looking for alternative methods like advance Unmanned Ariel Vehicle (UAV) which can also be integrated with this system.

GAIL also developed an innovative mobile application, from which the pictures of the exception taken locally from any mobile describing the actual scenario can be uploaded instantly to the portal. A report system integrated with this Bhuvan-GAIL portal can send alerts to the relevant executives via SMS and email regarding the changes noted along the ROU and also arrival of any new satellite imagery. To establish the technical feasibility of utilizing space technology for its pipeline applications, GAIL started the study with Imageries from Indian Satellites and later shifted to very high resolution foreign satellites.

Pipeline securities is a major issue across the world and with recent progress in satellite sensing technology, availability of new high resolution satellites, object oriented image analysis, etc., there is a possibility to introduce space technology for pipeline monitoring applications. GAIL's R&D pilot project on satellite monitoring of pipeline Right of Use (ROU) for 610 Km long Dahej – Vijaipur pipeline is one such effort to keep pace with the technological advancement, enabling time and cost effective solutions. Bhuvan- GAIL portal is operated with manual as well as auto-change analysis options to monitor the changes along natural gas pipeline Right of Use (RoU). The change analysis can be made with the help of this technology within the ROU and also outside the ROU up to 1 km risk zone.