Prelim Bits 31-01-2017

National Geoscience Award:

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- The National Geoscience Awards are the prestigious awards given by the Ministry of Mines.
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- The objective of the award is to honor individuals and teams of scientists for their achievements and contributions in the field of fundamental / applied geosciences, mining and allied areas.
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- Keshav Krishna, a scientist at the National Geophysical Research Institute (NGRI) has been selected for the National Geoscience Award for 2016.
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INSAT-3DR:

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- INSAT-3DR similar to INSAT-3D, is an advanced meteorological satellite of India launched by GSLV-F05.
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- INSAT-3DR will provide service continuity to earlier meteorological missions of ISRO for Earth observation.
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- The main application of this satellite includes Climate & Environment observation and Disaster Management as well as search and rescue services and configured with an imaging System and an Atmospheric Sounder.
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- The Satellite has a lift-off mass of 2211Kg and placed in Geostationary orbit.
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Atomic metallic hydrogen:

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- Scientists have created atomic metallic hydrogen which is the rarest material on the planet.
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- Hydrogen is squeezed at a pressure greater than the pressure at the centre of the earth.
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- At this extreme pressure solid molecular hydrogen breaks down and the tightly bound molecules dissociate to transform into atomic hydrogen, which is a metal.
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- The metallic hydrogen could act as a superconductor at room temperatures.
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- It can be used to increase the effectiveness of electric cars, energy production and storage, and transportation system by making magnetic levitation of high-speed trains possible, more efficient.
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- When metallic hydrogen is converted back to molecular hydrogen, the energy released during the process can be used as powerful rocket propellant and has high specific impulse among all other propellants.
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