Prelim Bits 29-04-2017

ReCAAP

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- The Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) is the **first regional government-to-government agreement** to promote and enhance cooperation against piracy and armed robbery in Asia.
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- The Agreement entered into force on 4 September 2006.
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- To date, 20 States (14 Asian countries, 4 European countries, Australia, the USA) have become Contracting Parties to ReCAAP.
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- Denmark, Norway, Netherlands and United Kingdom are the 4 European Countries.
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- India, Bangladesh, Sri Lanka, China, Japan, South Korea, ASEAN countries except Malaysia and Indonesia are the 14 Asian countries.
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- The ReCAAP Information Sharing Centre (ISC) was established for exchanging information among Contracting Parties on incidents of piracy and armed robbery, supports capacity building efforts of Contracting Parties, and for cooperative arrangements.
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Dawn spacecraft

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- Dawn is a space probe launched by NASA with the mission of studying **two of dwarf planet of the asteroid belt, Vesta and Ceres**.
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- It was launched in 2007 and it is currently in orbit about its second target, the dwarf planet Ceres.
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- Dawn is the first spacecraft to orbit two extraterrestrial bodies, the first spacecraft to visit either Vesta or Ceres, and also the first to visit a dwarf planet before New Horizons to Pluto.
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- It is the first NASA exploratory mission to use ion propulsion, which enabled it to enter and leave the orbit of multiple celestial bodies.
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Alternative to Lithium ion batteries

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- Recently, Scientists have developed **nickel-zinc (Ni-Zn) batteries** in which a **3D Zn "sponge"** replaces the powdered zinc anode, or positively charged electrode as a safer alternative to fire-prone lithium-ion batteries.
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- With 3D Zn, the batteries provide energy content and recharge ability and avoid the safety issues that plague lithium.
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- **Previously, Zn batteries are not considered** rechargeable in practice due to their tendency to cause short circuits but in Ni-Zn batteries, electric currents are more uniformly distributed within the sponge, making it physically difficult to cause short circuits.
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