



PRESS RELEASE

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Going nuclear – SEA studies next generation power source for space

Whilst most space missions generate electrical power with solar cells, some need alternative sources. This is especially necessary for missions to distant planets where the Sun provides only feeble light. Nuclear power (using the heat from radioactive decay rather than reactor technology) is often the only possibility, and has been used since the 1960s.

Currently only the USA and Russia have the technology for Radioisotope Thermoelectric Generators/Radioisotope Heater Units (RTGs and RHUs). The European Space Agency (ESA) is developing Europe's capability to produce nuclear powered spacecraft. A team, led by SEA, has already studied the preferred isotope and has recommended the Americium-241 (Am-241).

ESA has recently awarded a further contract to SEA and its team which consist of the National Nuclear Laboratory Ltd, the University of Leicester and Lockheed Martin UK, to address the next stage of the development – namely the safe encapsulation of the Am-241, so that the useful heat can be extracted, and critically, that in the event of any accident, the unit survives intact so that recovery is made easier.

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