

INTERCHANGEABLE PAYLOADS FOR ISRU MOBILITY CHASSIS. Ronny Theiss (rtheiss@norcat.org), Dale Boucher, Marcel Viel, Dave Roberts, James Kutchaw, Northern Centre for Advanced Technology (NORCAT)

A typical ISRU cycle consists of several stages and several activities requiring a suite of tools to accomplish the tasks. The tools have a common requirement to be mounted on a chassis for mobility. The requirements for available volume, power and traction are similar between most of the ISRU payloads allowing them to use a common mobility platform.

NORCAT has developed several payloads which interface to a common mobility platform which has been designed with the goals of ISRU payloads. This payload suite was demonstrated in Hawaii 2010 as part of a field deployment activity mimicking a full scale ISRU deployment. Payloads demonstrated include a load haul dump system, prospector system, plowing system and power system. Each of these systems could be reconfigured between chassis.