

Dynamic Compression Sector (DCS) New General User Guidelines

DCS was established to provide research opportunities primarily for dynamic compression or shock wave experiments. However, some experimental time may be allocated for non-shock wave experiments when DCS capabilities can make unique and/or novel contributions. All new General Users requesting beamtime as Principal Investigator (PI) must complete the New General User Questionnaire (herein referred to as the Questionnaire) in one of two pathways:

- A. Submit a proposal and complete the Questionnaire when prompted in the APS Beam Time Access System (Note: The user must submit the Questionnaire before the feasibility of the proposal will be considered.)
- B. A new General User may contact DCS to inquire about experiments prior to submitting a proposal. During this dialogue, the need for the Questionnaire will be explained and the same will be requested to inform additional discussions prior to proposal submission.

Shock Wave Experiments

The responses provided on the Questionnaire will determine the path forward for beamtime allocation as follows (see Figure 1):

User is experienced in experimental shock physics

The DCS will suggest:

- 1-2 days of 324-bunch mode time for x-ray measurements/test shots, or
- 1-2 days of 24-bunch or hybrid mode time for experiments during the *following* Run (3 days may be allocated in exceptional circumstances), or
- User submits a Beam Time Request in the System for every additional Run on the APS schedule and time is allocated according to APS policy.

User is inexperienced, but experiments are feasible

Experimental time will not be allocated. Instead, DCS will work with user to determine best path forward. Some training possibilities include:

- Training at Institute for Shock Physics at Washington State University or with a CAT member organization (Los Alamos, Lawrence Livermore, or Sandia National Laboratories) prior to proposal resubmission, or
- Coordination of opportunities where the new General User shadows an established PI during their scheduled beamtime at the DCS.

The DCS will reevaluate feasibility of a proposal after training is complete.

Experiments are not feasible at this time

The DCS will inform the User that the experiments are not feasible.

Non-Shock Wave Experiments

New General Users are asked to follow Pathway B (above). Discussion with the DCS team is needed to determine feasibility as well as how the DCS can uniquely contribute to the research.

General User (GU) Time Allocation

GU time allocation follows a modified APS schedule:

- New proposals submitted on or before the APS deadline for a given run will be considered for allocation for the following run. For example, a proposal submitted on 2/28/20 – the APS deadline for Run 2020-2 proposals – will be considered for allocation during Run 2020-3.
- Beam Time Requests against established proposals (i.e. continuation of proposed work by established DCS general user) will follow the APS deadlines for submission
- In some instances, non-shock wave experiments may be allocated to follow the APS deadline.

Figure 1. Process based on Questionnaire Results for Shock Wave Experiments

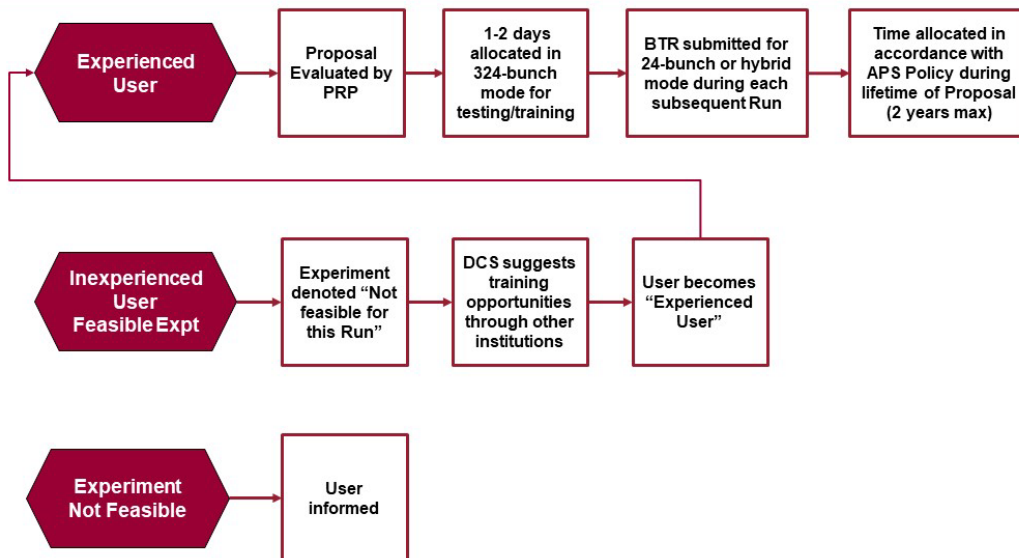


Figure 2. Example Timeline for a New DCS User for Shock Wave Experiments

