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COLUMBUS OPERATIONS THROUGHOUT THE COVID-19 PANDEMIC.

Abstract

In Spring 2020, the first Corona virus wave reached Munich in Germany where the Columbus Control Center (Col-CC) is located in Oberpfaffenhofen, culminating in a “lock-down” from end of March onwards until May. Then the restrictions were slowly relaxed step by step and adapted to the ongoing situation, however never returned to the Corona-free “unrestricted” time before the pandemic. Suitable concepts for Col-CC had to be developed on short notice to maintain the 24/7 real-time operations including support to the astronauts aboard the International Space Station, to secure ground and on-board Columbus systems integrity, to proceed with on-going experiments execution, and to continue the preparation of upcoming activities.

The major aspects to be addressed were: (1) Flight and Ground Control Teams and their presence in the control room, (2) interactions with the “outside world” through meetings, software and hardware maintenance, interface coordination requiring travel and (3) social aspects, informal communication within the teams and availability of operations personnel needed for 24/7 operations.

This paper describes the various steps which were implemented at Col-CC and how we finally managed to reduce the direct contacts within the Flight and Ground Control Teams to zero by restricting onsite access to the Control Room workers only, isolating the team members into different rooms and having the rest of the team working remotely from home. All these measures were implemented while still being successful in achieving our operational objectives.