

# ALERT BULLETIN

AB 2020:2/11-1

1/15/2020

1699060

TO: FAA (SEA-AEG)

INFO: FAA (AVP-1, AVP-200, AFS-200, AFS-280, AFS-800, AFS-100, ANM-100, SEA-ACO, AQS-230), A4A, ALPA, AMFA, ASAP, ATSG, CAPA, IAM, IATA, IBT, ICAO, ICASS, IATA, IPA, NATA, NTSB, PAMA, RAA, SWAPA, TWU

FROM: Becky L. Hooey, Director  
NASA Aviation Safety Reporting System

SUBJ: Undocumented/Unauthorized Modifications to Oxygen Service Carts

We recently received an ASRS report describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the following:

ASRS received a report from a Maintenance Tooling Technician describing the discovery of undocumented and unauthorized modifications to the company's oxygen service carts. The Technician stated the modifications had been accomplished with no engineering support, OEM drawings, or documentation. The Technician expressed concern about the safety of the modifications and the lack of proper procedure.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Gary Brauch at (408) 541-2869 or email at [gary.j.brauch@nasa.gov](mailto:gary.j.brauch@nasa.gov)



Aviation Safety Reporting System  
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN: 1699060

**Time**

Date: 201910

**Place**

Locale Reference.Airport: ZZZ.Airport

State Reference: US

Altitude.AGL.Single Value: 0

**Environment****Aircraft 1**

Make Model Name: No Aircraft

**Component 1**

Aircraft Component: Oxygen System/General

**Person 1**

Function.Maintenance: Other / Unknown

ASRS Report Number: 1699060

**Events**

Anomaly.Aircraft Equipment Problem: Less Severe

Anomaly.Deviation - Procedural: FAR

Anomaly.Deviation - Procedural: Published Material / Policy

Detector.Person: Maintenance

Result.General: None Reported / Taken

**Narrative 1**

Recently I went to ZZZ and met with several Tooling Supervisors from around the system to discuss the issues they were having with Company's Oxygen (O2) Service Carts. I found that ZZZ had modified the O2 Service Cart with no engineering support or OEM drawings or documentation. They did not update any information in the company's Tool Tracking System, with these modifications.

They changed/added lines, gauges, check valves, and shutoff valves without being oxygen cleaned. I am not sure if the gauges were checked for accuracy. I inducted this new O2 Service Cart into the Company's system based on the drawings and certificates that the OEM provided to us. This cart looked nothing like what was initially sent to ZZZ. My name and employee number is still [on] the last sign off on the NOW modified cart. I was disturbed about the fact that the Supervisor and his technicians had no sense that their modifications were illegal and needed proper documentation.

There seems to be a casualness about the proper handling of Tooling/Test Equipment. There is a lack of understanding of the importance of proper procedures, and accuracy. Also, just like performing work on aircraft, any work on tooling should be recorded. Untrained personnel should not be modifying testers. Oxygen has the added danger of contamination which can cause explosive and deadly results. This mentality starts at the top, our Supervisors of our local Tool Rooms, and goes down to the floor. I think a yearly CBT (Computer Based Training) on Tooling/Test Equipment and our SOP would show the importance of our test equipment and the impact it can have on our aircraft and people's lives. This attitude towards test equipment affects the safety/reliability for our fellow co-workers and our customers.

**Synopsis**

Maintenance Technician reported that station technicians modified company oxygen service carts without documentation and used unauthorized and uncleaned components for modification.