

## SOTM Technical Information Bulletin

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<b>Release Date:</b>	July 23, 2020
<b>Product Category:</b>	SOTM Generation IV Product Series
<b>Models Affected:</b>	M20-20M GEN IV antenna with Ka payload
<b>Component Affected:</b>	M20-20M GEN IV Ka Payload
<b>Purpose of Notification:</b>	Notify end users of a potential issue involving the false reporting of a “Ka PIB fan fault”

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### User Notification

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#### Issue

There is a known issue that may be encountered on SOTM M20-20M Gen IV antenna systems configured with a Ka payload where the user will be alerted to a “Ka PIB fan fault” in the fault status window when no such fault exists.

#### Solution

To clear the fault a power cycle is required. If the fault does not clear after several power cycles the fan performance can be visually inspected by removing the radome and applying power to the antenna. If the Ka PIB fan (the fan is perpendicular to the reflector) on the payload is not operating an RMA should be requested to have the fan replaced. If the fan is operating the Ka PIB fan fault can be ignored. Note that over temperature faults should not be ignored and indicate that there is a thermal issue with the system that needs to be addressed.

#### Background

The Ka payload design incorporates a circuit in the system that monitors the RPM of the Ka PIB fan. If the RPM falls below a defined threshold the fault message is initiated but will not impact the performance of the antenna. The RPM threshold is hard set in the hardware and cannot be modified by the software. Once the fault is initiated, it can only be cleared by cycling power. In analyzing this issue it was determined that the RPM threshold value was set too high and did not account for tolerance and fan variation as the antenna rotated through elevation. The potential for an erroneous fault message increases when the payload elevation angle is over seventy degrees.

To prevent any misunderstanding or confusion to the user with regard to receiving a “Ka PIB fan fault” message this fault has been removed from the M20-20M Gen IV antenna software beginning with software version 8.0.5. Over temperature fault status messages remain in place to alert the user to over temperature conditions, including those that result from a true fan fault. Users running earlier versions of the software should be aware of the potential for the false reporting of a “Ka PIB fan fault”.

## Affected Products

The following products and associated part numbers are affected by this technical information bulletin.

Part Number	Description
G420-06-1006-xx	M20 GEN IV Antenna M20-20M with Ka & Ku Payloads (only Ka payload affected)
G420-06-1016-14 & -15	M20 GEN IV Antenna M20-20M with Ka Payload
2020-M6-GWMF-xx	M20 GEN IV Antenna M20-20M with Ka Payload
2020-M6-PLM0-00	M20 GEN IV Ka Payload only
G420-06-5211-01	M20 GEN IV Ka Payload only

For more information on SOTM antenna products, please visit  
<https://gdmissionsystems.com/communications/satcom-on-the-move-antennas>

To contact our Customer Service organization, please visit  
<https://gdmissionsystems.com/contact-us>