

13 August 1996

Table 1 - Reference Table: This table identifies the relationships between the Level 4 requirements and RbRs for DADS1370 and DADS1375 which are impacted by this CCR.

DADS1370#A	Each DADS shall provide a mechanism for statistically monitoring both the raw and corrected bit error rate (BER) of storage media in the archive.	A: Statistical counts A: <u>Calculation of checksums to verify integrity of retrieved data files.</u>	S-DSS-20622	A	The STMGT CI shall provide to the SDSRV CI's MD Component a copy of the checksum value calculated upon initial receipt of each file in each data granule stored in the archive.
			S-DSS-03746	A	The SDSRV CI's MD Component shall provide storage for checksum metadata value associated with each file of each data granule stored in the STMGT CI.
			S-DSS-20621	A	The STMGT CI shall calculate a checksum for each file associated with each data granule stored in the archive.
			S-DSS-20623	A	The STMGT CI shall recalculate the checksum value of each file associated with each retrieved data granule and compare it with the checksum metadata value for that file stored in the SDSRV CI's MD Component for accuracy.
DADS1375#A	Each DADS shall provide automatic management and copying/refresh of archive media.	A: Copying of archive media after media failures A: <u>Automatic copying and refresh of archive media is not provided in Release A. Operations will be notified of detection of errors.</u>	S-DSS-20220	A	If an uncorrectable error occurs during archive, the STMGT CI shall notify the operations staff, select a different piece of Media and complete the archive operation. Note: Contents of original media shall be recreated on new media and the original removed from system.
			S-DSS-20240	A	If the end of the archive media is encountered before completing a write operation, the STMGT CI shall select new media and complete the write operation with the new archive media.
			S-DSS-20250	A	If an uncorrectable error occurs during retrieval operations, STMGT CI shall terminate the operation and notify operations staff and the user/data requester of the failure.
			S-DSS-20710	A	The STMGT CI shall assign a unique identifier to new archive media.

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Table 1 - Reference Table (con't): This table identifies the relationships between the Level 4 requirements and RbRs for DADS1370 and DADS1375 which are impacted by this CCR.

DADS1370#B	Each DADS shall provide a mechanism for statistically monitoring both the raw and corrected bit error rate (BER) of storage media in the archive.	B: full compatibility	S-DSS-20624	B	The STMGT CI shall provide a mechanism to statistically monitor the checksum error rate of archive media.
			S-DSS-20622	A	The STMGT CI shall provide to the SDSRV CI's MD Component a copy of the checksum value calculated upon initial receipt of each file in each data granule stored in the archive.
			S-DSS-03746	A	The SDSRV CI's MD Component shall provide storage for checksum metadata value associated with each file of each data granule stored in the STMGT CI.
			S-DSS-20621	A	The STMGT CI shall calculate a checksum for each file associated with each data granule stored in the archive.
			S-DSS-20623	A	The STMGT CI shall recalculate the checksum value of each file associated with each retrieved data granule and compare it with the checksum metadata value for that file stored in the SDSRV CI's MD Component for accuracy.
DADS1375#B	Each DADS shall provide automatic management and copying/refresh of archive media.	B: Copying of archive media after media failures	S-DSS-20220	A	If an uncorrectable error occurs during archive, the STMGT CI shall notify the operations staff, select a different piece of Media and complete the archive operation. Note: Contents of original media shall be recreated on new media and the original removed from system.
			S-DSS-20230	AB	The STMGT CI shall notify operations staff to discard source archive media after its contents have been re-created on the new media.
			S-DSS-20240	A	If the end of the archive media is encountered before completing a write operation, the STMGT CI shall select new media and complete the write operation with the new archive media.

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Table 1 - Reference Table (con't): This table identifies the relationships between the Level 4 requirements and RbRs for DADS1370 and DADS1375 which are impacted by this CCR.

DADS1375#B			S-DSS-20250	A	If an uncorrectable error occurs during retrieval operations, STMGT CI shall terminate the operation and notify operations staff and the user/data requester of the failure.
			S-DSS-20255	<u>AB</u>	If an uncorrectable error occurs during retrieval operations, STMGT CI shall automatically recreate the contents on new media.
			S-DSS-20710	A	The STMGT CI shall assign a unique identifier to new archive media.
			S-DSS-20625	B	The STMGT CI shall allow the operator to manually specify archive media to be recopied/refreshed.

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Table 2 - RbR Change Table: This table identifies modifications to an existing requirement in the RBR class as identified in the 7/31 baseline version of the RTM database.

RBR_id	req_key	req_category	segment	req_type	s_verif_method	s_verif_stat	a_verif_method	a_verif_stat	CCR	text	interpretation text
DADS1370#A	4474	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>		Each DADS shall provide a mechanism for statistically monitoring both the raw and corrected bit error rate (BER) of storage media in the archive.	A: Statistical counts A: Calculation of checksums to verify integrity of retrieved data files.
DADS1375#A	4476	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>		Each DADS shall provide automatic management and copying/refresh of archive media.	A: Copying of archive media after media failures A: Automatic copying and refresh of archive media is not provided in Release A. Operations will be notified of detection of errors.
DADS1370#B	3551	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>		Each DADS shall provide a mechanism for statistically monitoring both the raw and corrected bit error rate (BER) of storage media in the archive.	B: full compatibility
DADS1375#B	3552	mission essential	SDPS	functional	test	un-verified	test	<u>un-verified</u>		Each DADS shall provide automatic management and copying/refresh of archive media.	B: Copying of archive media after media failures

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Table 3 - Level 4 Change Table: This table identifies modifications to an existing requirement in the Level 4 requirement class as identified in the 7/31 baseline version of the RTM database.

L4 id	req_key	rel	req_type	req_status	ver_method	ver_status	CCR	text
S-DSS-20220	3660	A	functional	approved	demo	<u>un-verified</u>		If an uncorrectable error occurs during archive, the STMGT CI shall notify the operations staff, select a different piece of Media and complete the archive operation. Note: Contents of original media shall be recreated on new media and the original removed from system.
S-DSS-20230	3661	<u>AB</u>	functional	approved	demo	<u>un-verified</u>		The STMGT CI shall notify operations staff to discard source archive media after its contents have been re-created on the new media.
S-DSS-20250	3663	A	functional	approved	demo	<u>un-verified</u>		If an uncorrectable error occurs during retrieval operations, STMGT CI shall terminate the operation and notify operations staff and the user/data requester of the failure.
S-DSS-20255	3664	<u>AB</u>	functional	approved	demo	<u>un-verified</u>		If an uncorrectable error occurs during retrieval operations, STMGT CI shall automatically recreate the contents on new media.

Table 4 - Link Addition Table: This table identifies NEW links which are to be added to the RTM database.

RbR_id	L4_id
<u>DADS1375#A</u>	<u>S-DSS-20220</u>
<u>DADS1375#A</u>	<u>S-DSS-20240</u>
<u>DADS1375#A</u>	<u>S-DSS-20250</u>
<u>DADS1375#A</u>	<u>S-DSS-20710</u>