**RMAN delete obsolete but keep archivelogs**

When doing RMAN backups we typically have one strategy and one policy. **But the deletion policy always considers not only backups and copies but also archivelogs.** In some cases one might want to keep archivelogs for a longer period of time, for instance if you are running a non-Dataguard Standby database using DBVisit. Let’s say we want to keep two generations of backups, we would do the following:

|  |  |
| --- | --- |
| 1  2  3  4  5 | RMAN> CONFIGURE RETENTION POLICY TO REDUNDANCY 2;    new RMAN configuration parameters:  CONFIGURE RETENTION POLICY TO REDUNDANCY 2;  new RMAN configuration parameters are successfully stored |

Now let’s see what backups we have:

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28 | RMAN> **list backup of database summary;**      List of Backups  ===============  Key TY LV S Device Type Completion Time #Pieces #Copies Compressed Tag  ------- -- -- - ----------- ------------------- ------- ------- ---------- ---  23 B F A DISK 22.12.2016 09:19:14 1 1 NO TAG20161222T091750  27 B F A DISK 22.12.2016 10:02:33 1 1 NO TAG20161222T100145  28 B F A DISK 22.12.2016 10:02:57 1 1 NO TAG20161222T100145  29 B F A DISK 22.12.2016 10:03:22 1 1 NO TAG20161222T100145  33 B F A DISK 22.12.2016 10:17:14 1 1 NO TAG20161222T101632  34 B F A DISK 22.12.2016 10:17:32 1 1 NO TAG20161222T101632  35 B F A DISK 22.12.2016 10:18:00 1 1 NO TAG20161222T101632      RMAN> **list backup of archivelog all summary;**      List of Backups  ===============  Key TY LV S Device Type Completion Time #Pieces #Copies Compressed Tag  ------- -- -- - ----------- ------------------- ------- ------- ---------- ---  24 B A A DISK 22.12.2016 09:19:30 1 1 NO TAG20161222T091930  26 B A A DISK 22.12.2016 10:01:34 1 1 NO TAG20161222T100127  30 B A A DISK 22.12.2016 10:03:35 1 1 NO TAG20161222T100335  32 B A A DISK 22.12.2016 10:16:24 1 1 NO TAG20161222T101615  36 B A A DISK 22.12.2016 10:18:16 1 1 NO TAG20161222T101815 |

So we have two database backups and corresponding backups of archivelogs. And what archivelogs are still on disk?

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42 | RMAN> **list archivelog all;**    List of Archived Log Copies for database with db\_unique\_name OLTP  =====================================================================    Key Thrd Seq S Low Time  ------- ---- ------- - -------------------  46 1 15 A 21.12.2016 12:56:40  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_15\_d5q709b5\_.arc    41 1 16 A 22.12.2016 09:17:31  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_16\_d5q709x1\_.arc    43 1 17 A 22.12.2016 09:19:29  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_17\_d5q709oq\_.arc    35 1 18 A 22.12.2016 10:01:26  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_18\_d5q5q65p\_.arc    36 1 19 A 22.12.2016 10:03:33  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_19\_d5q6gtmj\_.arc    38 1 20 A 22.12.2016 10:16:10  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_20\_d5q6lm3q\_.arc    45 2 11 A 21.12.2016 12:56:30  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_11\_d5q709gs\_.arc    42 2 12 A 22.12.2016 09:17:20  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_12\_d5q709xo\_.arc    44 2 13 A 22.12.2016 09:19:14  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_13\_d5q709ln\_.arc    40 2 14 A 22.12.2016 10:01:12  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_14\_d5q709pq\_.arc    37 2 15 A 22.12.2016 10:03:18  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_15\_d5q6gg9k\_.arc    39 2 16 A 22.12.2016 10:15:58  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_16\_d5q6l6jm\_.arc |

That’s all archivelogs that would be needed for recovery of the older database backup. Now let’s see what is obsolete:

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21 | RMAN> **report obsolete;**    RMAN retention policy will be applied to the command  RMAN retention policy is set to redundancy 2  Report of obsolete backups and copies  Type Key Completion Time Filename/Handle  -------------------- ------ ------------------ --------------------  Backup Set 23 22.12.2016 09:19:16  Backup Piece 23 22.12.2016 09:19:16   /u01/app/oracle/fra/OLTP/43C6AA13C2390666E0538D24100A09EF/backupset/2016\_12\_22/o1\_mf\_nnndf\_TAG20161222T091750\_d5q33orv\_.bkp  Backup Set 24 22.12.2016 09:19:30  Backup Piece 24 22.12.2016 09:19:30 /u01/app/oracle/fra/OLTP/backupset/2016\_12\_22/o1\_mf\_annnn\_TAG20161222T091930\_d5q34ljw\_.bkp  Backup Set 25 22.12.2016 09:19:34  Backup Piece 25 22.12.2016 09:19:34 /u01/app/oracle/fra/OLTP/autobackup/2016\_12\_22/o1\_mf\_s\_931252772\_d5q34ol5\_.bkp  Backup Set 26 22.12.2016 10:01:36  Backup Piece 26 22.12.2016 10:01:36 /u01/app/oracle/fra/OLTP/backupset/2016\_12\_22/o1\_mf\_annnn\_TAG20161222T100127\_d5q5m88s\_.bkp  Archive Log 43 22.12.2016 10:25:30 /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_17\_d5q709oq\_.arc  Archive Log 41 22.12.2016 10:25:30 /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_16\_d5q709x1\_.arc  Archive Log 42 22.12.2016 10:25:30 /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_12\_d5q709xo\_.arc  Archive Log 44 22.12.2016 10:25:31 /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_13\_d5q709ln\_.arc  Archive Log 45 22.12.2016 10:25:35 /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_11\_d5q709gs\_.arc  Archive Log 46 22.12.2016 10:25:37 /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_15\_d5q709b5\_.arc |

The oldest backup is obsolete which is fine since we already have three full backups. **Also all the archivelogs are obsolete since they were already backuped up and can be restored from those backups in case of emergency.** But what can we do if we want to keep the archivelogs on disk as long as possible? A “delete obsolete” would remove them along with the outdated database backup.  
Let’s try to keep them using “change”:

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10 | RMAN> **change archivelog all keep until time 'sysdate+3';**    released channel: ORA\_DISK\_1  allocated channel: ORA\_DISK\_1  channel ORA\_DISK\_1: SID=279 instance=oltp\_1 device type=DISK  RMAN-00571: ===========================================================  RMAN-00569: =============== ERROR MESSAGE STACK FOLLOWS ===============  RMAN-00571: ===========================================================  RMAN-03002: failure of KEEP command at 12/22/2016 10:29:34  RMAN-06529: CHANGE ... KEEP not supported for ARCHIVELOG |

So that is not an option. Maybe changing them to “unavailable” might do the job?

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7 | RMAN> **change archivelog all unavailable;**    RMAN-00571: ===========================================================  RMAN-00569: =============== ERROR MESSAGE STACK FOLLOWS ===============  RMAN-00571: ===========================================================  RMAN-03009: failure of unavailable command on ORA\_DISK\_1 channel at 12/22/2016 10:30:43  ORA-19813: cannot have unavailable file /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_15\_d5q709b5\_.arc  in DB\_RECOVERY\_FILE\_DEST |

**It is not possible to mark archivelog files in FRA as unavailable**. There must be another way to excempt the archivelogs from the retention policy. The policy applies to all files known to the database. So let’s get rid of the archivelogs:

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27 | RMAN> **change archivelog all uncatalog;**    uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_15\_d5q709b5\_.arc RECID=46 STAMP=931256737  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_16\_d5q709x1\_.arc RECID=41 STAMP=931256730  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_17\_d5q709oq\_.arc RECID=43 STAMP=931256730  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_18\_d5q5q65p\_.arc RECID=35 STAMP=931255414  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_19\_d5q6gtmj\_.arc RECID=36 STAMP=931256170  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_20\_d5q6lm3q\_.arc RECID=38 STAMP=931256291  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_11\_d5q709gs\_.arc RECID=45 STAMP=931256735  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_12\_d5q709xo\_.arc RECID=42 STAMP=931256730  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_13\_d5q709ln\_.arc RECID=44 STAMP=931256731  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_14\_d5q709pq\_.arc RECID=40 STAMP=931256729  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_15\_d5q6gg9k\_.arc RECID=37 STAMP=931256158  uncataloged archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_16\_d5q6l6jm\_.arc RECID=39 STAMP=931256278  Uncataloged 12 objects |

That worked. The files are still there but the database does not know that anymore. Now we can apply the policy in the way we want it:

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15 | RMAN> **report obsolete;**    RMAN retention policy will be applied to the command  RMAN retention policy is set to redundancy 2  Report of obsolete backups and copies  Type Key Completion Time Filename/Handle  -------------------- ------ ------------------ --------------------  Backup Set 23 22.12.2016 09:19:16  Backup Piece 23 22.12.2016 09:19:16  /u01/app/oracle/fra/OLTP/43C6AA13C2390666E0538D24100A09EF/backupset/2016\_12\_22/o1\_mf\_nnndf\_TAG20161222T091750\_d5q33orv\_.bkp  Backup Set 24 22.12.2016 09:19:30  Backup Piece 24 22.12.2016 09:19:30  /u01/app/oracle/fra/OLTP/backupset/2016\_12\_22/o1\_mf\_annnn\_TAG20161222T091930\_d5q34ljw\_.bkp  Backup Set 25 22.12.2016 09:19:34  Backup Piece 25 22.12.2016 09:19:34  /u01/app/oracle/fra/OLTP/autobackup/2016\_12\_22/o1\_mf\_s\_931252772\_d5q34ol5\_.bkp  Backup Set 26 22.12.2016 10:01:36  Backup Piece 26 22.12.2016 10:01:36  /u01/app/oracle/fra/OLTP/backupset/2016\_12\_22/o1\_mf\_annnn\_TAG20161222T100127\_d5q5m88s\_.bkp |

The oldest backup is still obsolete, but now archivelogs anymore. That’s want we wannted to achieve. I can now remove the old backup:

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25 | RMAN> **delete noprompt obsolete;**    RMAN retention policy will be applied to the command  RMAN retention policy is set to redundancy 2  using channel ORA\_DISK\_1  Deleting the following obsolete backups and copies:  Type Key Completion Time Filename/Handle  -------------------- ------ ------------------ --------------------  Backup Set 23 22.12.2016 09:19:16  Backup Piece 23 22.12.2016 09:19:16  /u01/app/oracle/fra/OLTP/43C6AA13C2390666E0538D24100A09EF/backupset/2016\_12\_22/o1\_mf\_nnndf\_TAG20161222T091750\_d5q33orv\_.bkp  Backup Set 24 22.12.2016 09:19:30  Backup Piece 24 22.12.2016 09:19:30  /u01/app/oracle/fra/OLTP/backupset/2016\_12\_22/o1\_mf\_annnn\_TAG20161222T091930\_d5q34ljw\_.bkp  Backup Set 25 22.12.2016 09:19:34  Backup Piece 25 22.12.2016 09:19:34  /u01/app/oracle/fra/OLTP/autobackup/2016\_12\_22/o1\_mf\_s\_931252772\_d5q34ol5\_.bkp  Backup Set 26 22.12.2016 10:01:36  Backup Piece 26 22.12.2016 10:01:36  /u01/app/oracle/fra/OLTP/backupset/2016\_12\_22/o1\_mf\_annnn\_TAG20161222T100127\_d5q5m88s\_.bkp  deleted backup piece  backup piece handle=  /u01/app/oracle/fra/OLTP/43C6AA13C2390666E0538D24100A09EF/backupset/2016\_12\_22/o1\_mf\_nnndf\_TAG20161222T091750\_d5q33orv\_.bkp RECID=23 STAMP=931252741  deleted backup piece  backup piece handle=/u01/app/oracle/fra/OLTP/backupset/2016\_12\_22/o1\_mf\_annnn\_TAG20161222T091930\_d5q34ljw\_.bkp RECID=24 STAMP=931252770  deleted backup piece  backup piece handle=/u01/app/oracle/fra/OLTP/autobackup/2016\_12\_22/o1\_mf\_s\_931252772\_d5q34ol5\_.bkp RECID=25 STAMP=931252773  deleted backup piece  backup piece handle=/u01/app/oracle/fra/OLTP/backupset/2016\_12\_22/o1\_mf\_annnn\_TAG20161222T100127\_d5q5m88s\_.bkp RECID=26 STAMP=931255288  Deleted 4 objects |

Afterwards I can re-register the archivelogs.

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35 | RMAN> **catalog recovery area noprompt;**    searching for all files in the recovery area    List of Files Unknown to the Database  =====================================  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_20\_d5q6lm3q\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_16\_d5q6l6jm\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_15\_d5q709b5\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_11\_d5q709gs\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_13\_d5q709ln\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_17\_d5q709oq\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_14\_d5q709pq\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_18\_d5q5q65p\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_19\_d5q6gtmj\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_15\_d5q6gg9k\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_16\_d5q709x1\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_12\_d5q709xo\_.arc  cataloging files...  cataloging done    List of Cataloged Files  =======================  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_20\_d5q6lm3q\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_16\_d5q6l6jm\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_15\_d5q709b5\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_11\_d5q709gs\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_13\_d5q709ln\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_17\_d5q709oq\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_14\_d5q709pq\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_18\_d5q5q65p\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_19\_d5q6gtmj\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_15\_d5q6gg9k\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_16\_d5q709x1\_.arc  File Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_12\_d5q709xo\_.arc |

**The archivelog files are back in the database catalog**. Now I can handle them separately and apply any rule I want.

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21 | RMAN> **delete noprompt archivelog until time 'sysdate-1/12';**    released channel: ORA\_DISK\_1  allocated channel: ORA\_DISK\_1  channel ORA\_DISK\_1: SID=279 instance=oltp\_1 device type=DISK  List of Archived Log Copies for database with db\_unique\_name OLTP  =====================================================================    Key Thrd Seq S Low Time  ------- ---- ------- - -------------------  49 1 15 A 21.12.2016 12:56:40  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_15\_d5q709b5\_.arc    50 2 11 A 21.12.2016 12:56:30  Name: /u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_11\_d5q709gs\_.arc    deleted archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_1\_15\_d5q709b5\_.arc RECID=49 STAMP=931257331  deleted archived log  archived log file name=/u01/app/oracle/fra/OLTP/archivelog/2016\_12\_22/o1\_mf\_2\_11\_d5q709gs\_.arc RECID=50 STAMP=931257331  Deleted 2 objects |

Not very straight forward, but it does the job.

Inspired by a [comment on Twitter by Franck Pachot](https://twitter.com/FranckPachot/status/811910340158128128), the best way to keep a history of archivelogs is not to use “ALL” but “FROM”. So the approach the keep a history of three days would be the follwing:

|  |  |
| --- | --- |
| 1  2  3 | RMAN> **change archivelog from time 'sysdate-3' uncatalog;**  RMAN> **delete noprompt obsolete;**  RMAN> **catalog recovery area noprompt;** |

That way all archivelogs from the last three days are uncataloged. **All other archivelogs are handled by the “delete obsolete” operation and there is no need to remove archivelogs manually**.

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1. 

**Peter** 10:23 am on June 15, 2018

Hi Marco,  
sorry posting on your old thread.  
I’m running into the following interesting issue:  
Since applying 12.2.0.1.180417 archivelog backupsets were not obsoleted and due this they were not deleted by “delete obsolete”.  
Patch was applied on 3th May.  
If you “list backup by file;” you see many archivelog backups, which should be obsolete and deleted (it’s June and we have a recover window of 5 days) and 2 database backup files from this 3th May.  
Do you have an idea? I’ve opened a SR and will let you know the solution. Because of this behaivior is on all our RACs which were patched in May/18 I think it’s a bug.  
Cheers Peter

Like

1. 

[**Marco Mischke**](https://dbamarco.wordpress.com/)10:47 am on June 15, 2018

Hi Peter,  
indeed, sounds like a bug. You may use “rman trace=rman.trc debug target /”, do a “report obsolete” and then check the outcome in “rman.trc”. Maybe you find the point where it tries to identify the obsolete archivelgs.  
Or, maybe RMAN is right, you can try “report need backup” to see if some files do not have sufficient backups.  
Cheers,  
Marco

Like

1. 

**Peter** 6:34 am on June 28, 2018

Hi Marco,  
after a ping-pong SR I’ve investigated further by myself.

As Joerg Sobottka wrote in OTN It seems the “BACKUP OPTIMIZATION ON” can mak trouble and could causing the missing obsoleteing of archived redolog backups.  
shortly:  
\* I’patched the databases on 3-MAY  
\* since then backupsets of archivelogs remains and were not obsoleted  
\* there were 3 datafile backupsets of 3-MAY and were not obsoleted, too

I’ve checked some notes, there could be a problem if you have read only tablespaces, then “”BACKUP OPTIMIZATION ON” causes skipping the backup of these datafiles if there is a backup available.

The 3 incremental backupsets of 3-MAY includes datafiles of PDB$SEED which is read only by design. I assume while patching the SQL in database the “PDB$SEED” will open in “read write” and the DML and DDL causes redo, a log switch occurs and and archived redolog was created.

Because “BACKUP OPTIMIZATION ON” and switching back the PDB$SEED to read only after patching, the RMAN needs the archivelog backups for restoring the “PDB$SEED”.

I’ve tried out now:  
\*setting “BACKUP OPTIMIZATION OFF”  
\*BACKUP PLUGGABLE DATABASE “PDB$SEED”

And now, voila, the backups of archived redologs and “PDB$SEED” datafile backups of MAY became obsolete.  
I’m not sure and will check this on the other affected DBs and report it to the SR, but this is very valid conlusion. What do you think?

Many thanks to Joerg Sobottka, for the “BACKUP OPTIMIZATION” clue.

The complete thread with Jörg and Ian in OTN:  
<https://community.oracle.com/message/14850447#14850447>

Cheers Peter

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