

# Rediscovering old datasets

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# The archiving problem

- The only NASA missions whose radio occultation atmospheric/ionospheric profiles are easily available are:
  - MGS (Hinson and Stanford colleagues)
  - Galileo/Jupiter (Hinson and Stanford colleagues)
  - Galileo/Io (Hin – you get the idea)
  - Not Voyager, PVO, Mariner 9 or Viking
  - Not Cassini
- NSSDC catalogue says it has reduced atmospheric/ionospheric profiles for PVO and Mariner 9
- So I requested copies to see if these data are accessible and useable

# PVO

- <http://nssdc.gsfc.nasa.gov/nmc/datasetDisplay.do?id=PSPA-00345>
- About 200 profiles
- Data produced on UNIVAC 1100/81 computer, output on 9-track 1600 bpi magnetic tapes
- Data pulled from magnetic tape and ftp'd to me with documentation
- But I can't convert readable bytes into anything meaningful
- Information might not be ASCII-coded?

# Mariner 9

- <http://nssdc.gsfc.nasa.gov/nmc/datasetDisplay.do?id=PSPA-00141>
- Tables of ionospheric profiles and other reduced data products
- Catalogue says data on microfilm, which is labour-intensive to read, but someone at NSSDC remembered a set of CDs
- But the CDs correspond to a dump of raw data for Mariner 4, 5, 6, 7, 9, 10 and PVO, not the reduced data I wanted
- <http://nssdc.gsfc.nasa.gov/nmc/datasetDisplay.do?id=PSPA-00290>
- Discussing with NSSDC the best way to see what microfilm actually contains and whether the subset of information I want can be extracted cheaply
- NSSDC's usual approach is to digitize entire microfilm in a semi-automated way, which is time-consuming and expensive

# Venera 15 and 16

- 29 N(z) profiles I showed in Bonn are all that Gavrik has available
- Funding needed to regenerate remaining 120 profiles...
- Profiles assembled into PDS-acceptable dataset with documentation, sent to Steve Joy (PPI node of PDS) in mid-May
- Steve wants to incorporate labels into data files, not have a separate label file for each profile
  - Sounds fine and probably won't take much time, but finding small amount of Steve's time for low-priority task is difficult...
- I remind Steve about this dataset every few weeks and hopefully dataset will be sent for review eventually

# Conclusions

- Unless a miracle occurs, I'm not able to read NSSDC copy of PVO profiles
- Microfilmed Mariner 9 data can at least be read (I assume), but I'm not sure how to acquire copies
- Venera moving slowly, but moving
- Does anyone have copies of these reduced datasets that they can read?
- Would anyone like to try reading the PVO files?