Introduction to DTC Extended BUFR/PrepBUFR User Support

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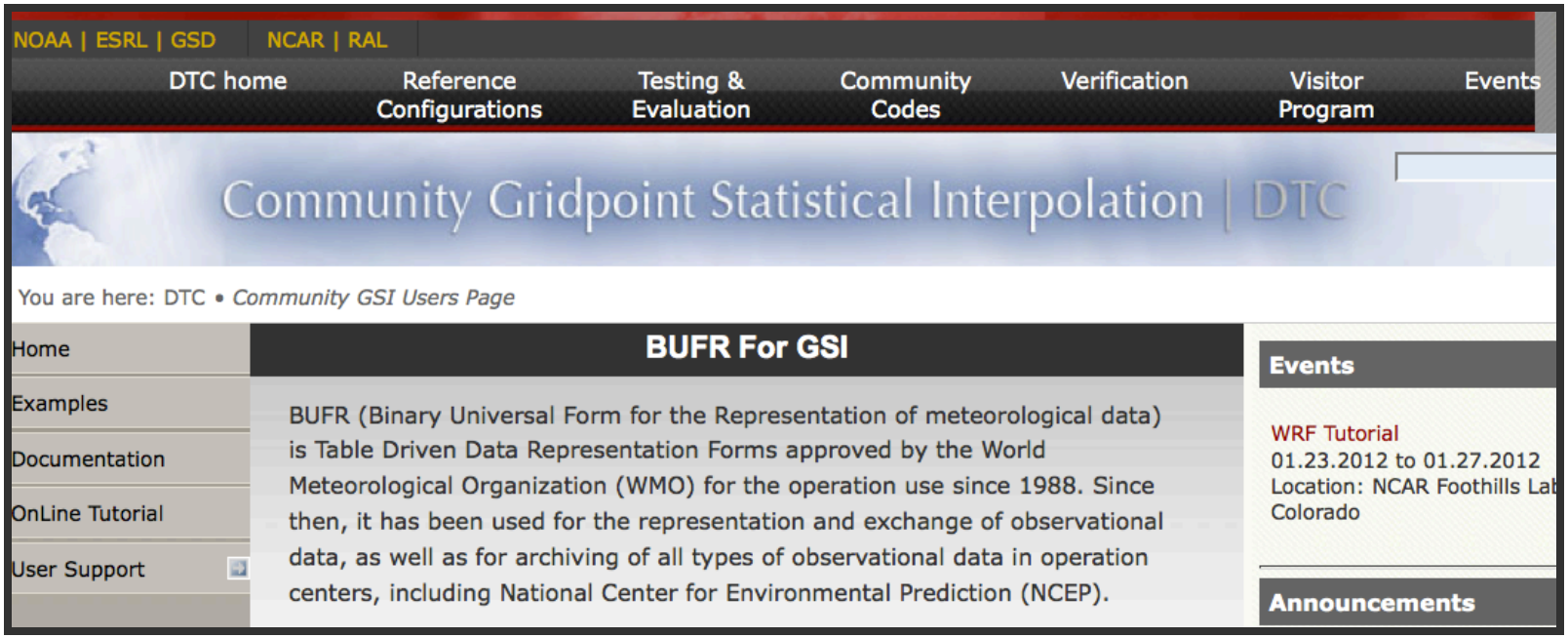
DTC Support to NCEP BUFR/PrepBUFR

- History
  - As a part of community GSI User Support
  - Start from the 1st GSI tutorial (June, 2010)
    - 2 lectures and 6 practical examples
  - Enhanced support in community GSI release 3 (April, 2011)
    - Enhanced BUFR tools within the GSI release package
    - Added a new Chapter in the GSI User's Guide to introduce BUFR/PrepBUFR and processing tools
  - An important part of the 2nd GSI tutorial (June, 2011)
- **Extended** DTC BUFR Support
  - Support from HFIP project during this Fall
  - The 1st funding to support BUFR/PrepBUFR

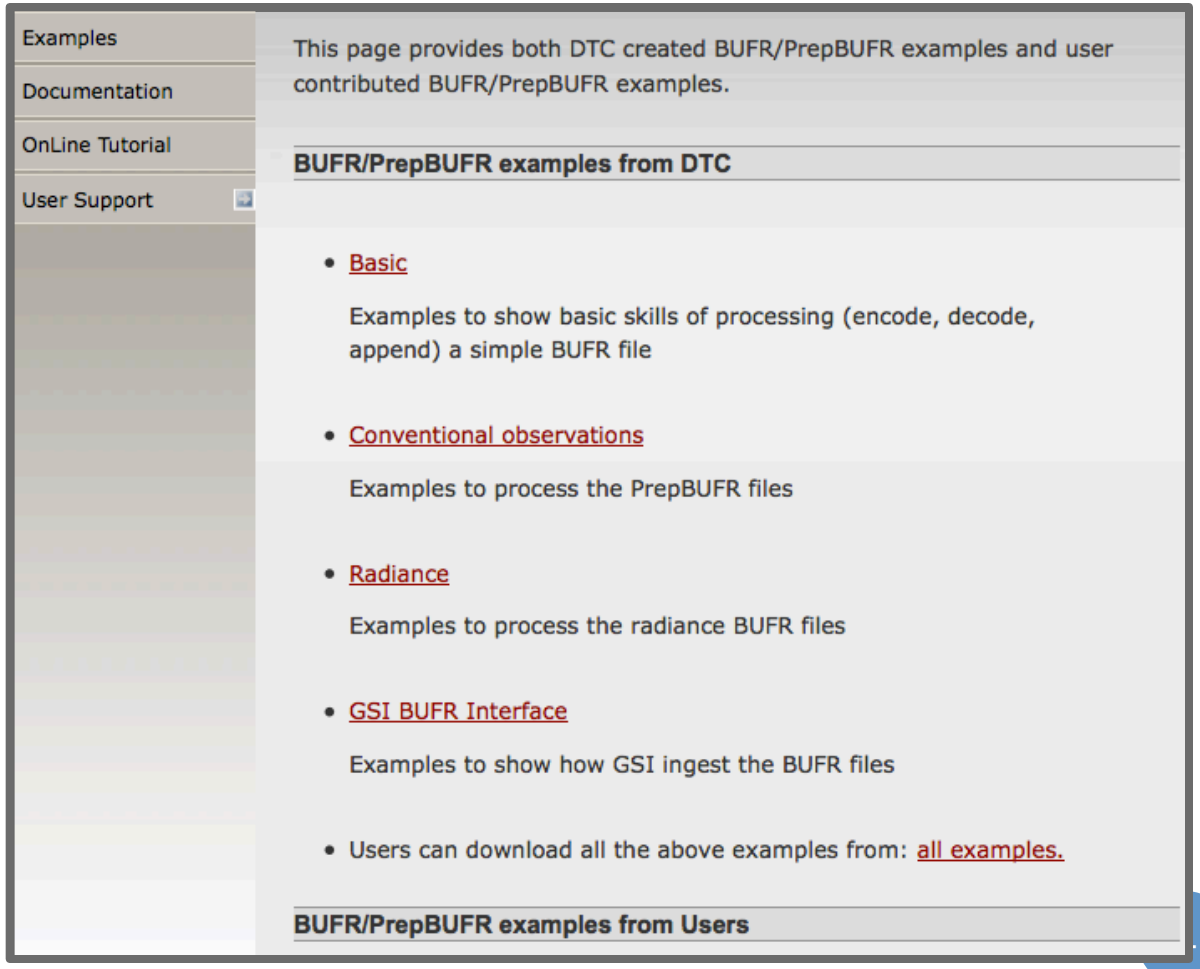
Extended Support – BUFR User's Web

- Built a new web devoted to BUFR support:
  http://www.dtcenter.org/com-GSI/BUFR/index.php
- **One stop shopping**: Collected BUFR/PrepBUFR documentation, examples/tools, and practical instructions under one website
- **Site for sharing**: quickly publish DTC and user contributed new BUFR/PrepBUFR processing examples/tools



Extended Support – More Examples

- Simple examples are KEY for a beginners
- Share BUFR processing experiences among users (Quick update)
- Easy to locate
  - basic
  - Conventional
  - radiance
  - GSI BUFR interface



Extended Support – BUFR User's Guide

- A BUFR document designed to help community users
- Cover a wide range of NCEP BUFR/PrepBUFR knowledges
- Will improve based on review feedback

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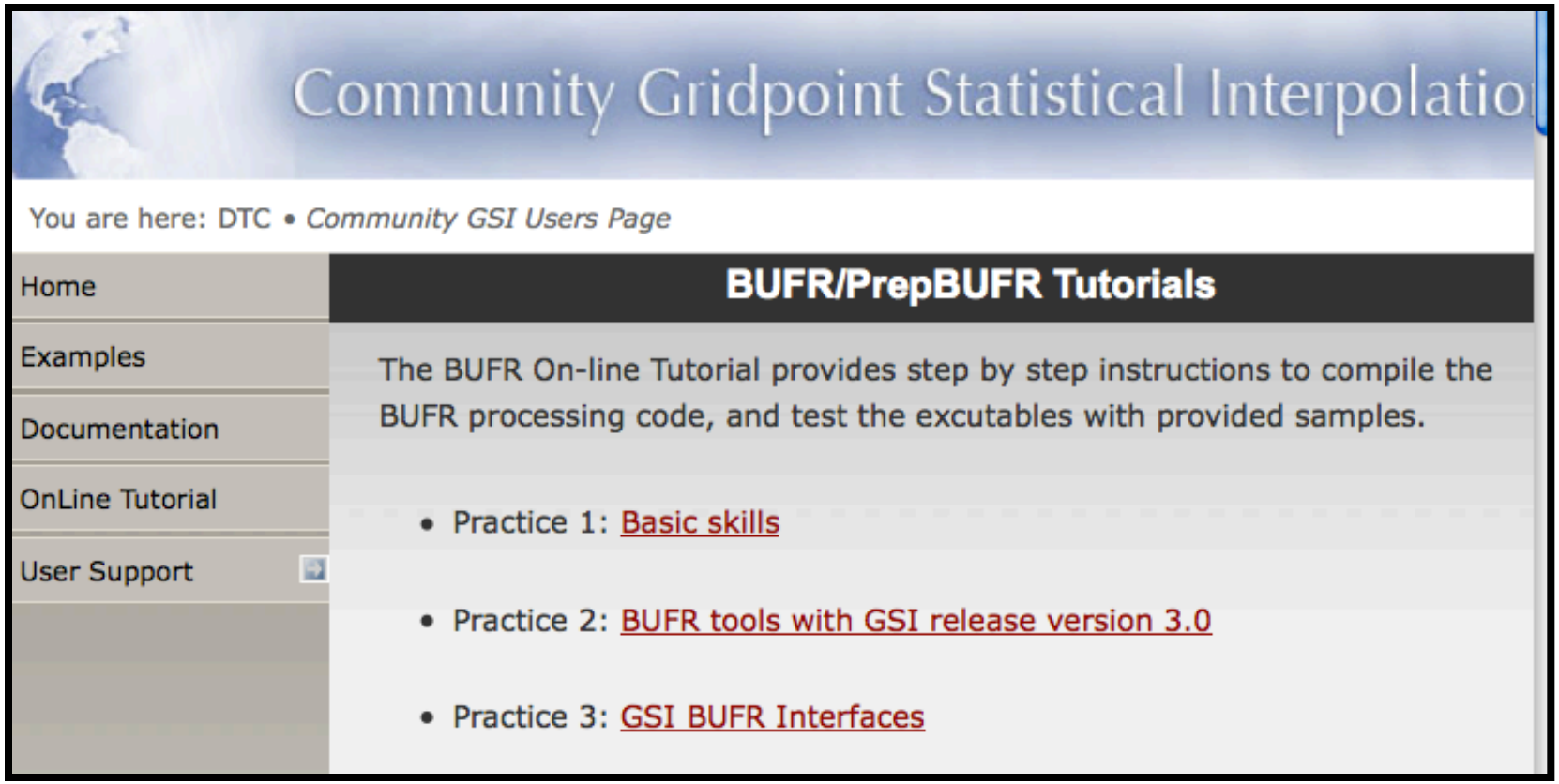
Extended Support – On-line Tutorial

- Step-by-Step instructions to help users practice numerous examples
- Suggest that users work through the exercises after the tutorial



Extended Support - Tutorial

- Introduction to DTC Extended BUFR/PrepBUFR User Support (10-min)
- BUFR Basic: Self-descriptive Table Driven Form (15-min)
- **BUFR File Processing** (35-min)

- 10 minutes break (Q&A)

- **BUFR Tables** (30-min)
- GSI BUFR Interface (15 min)
- Introduction to NCEP Observation Data Processing Procedure and Products (10-min)
- Summary, Future, and Survey (5-min)

- Q&A (15-min)

Reference and further exploration

- WMO International codes

http://www.wmo.int/pages/prog/www/WMOCodes.html

- Standard table from WMO: BUFR Table A, B, C, D

http://www.wmo.int/pages/prog/www/WMOCodes/TDCFtables.html#TDCFtables

- WMO BUFR guide

http://www.wmo.int/pages/prog/www/WMOCodes/Guides/BUFRCREXPreface_en.html

- NCEP/NCO web to introduce BUFRLIB

http://www.nco.ncep.noaa.gov/sib/decoders/BUFRLIB/

- PREPBUFR documents at NCEP

http://www.emc.ncep.noaa.gov/mmb/data_processing/prepbufr.doc/

- Observation data processing at NCEP (by Dennis Keyser)

http://www.emc.ncep.noaa.gov/mmb/data_processing/data_processing/