NFARL Antenna Special Interest Group (SIG)
Self-Study Reading Assignments

Month 4 – Feedlines, Baluns and Chokes (what, why and where)

- **Week 1** – for net discussion on 04/08/2010
  
  **Transmission Line Theory**
  - “Basic Theory of Transmission” ARRL Antenna Book, pp. 24-1 to 24-6
  - “Practical Transmission Lines” ARRL Antenna Book, pp. 24-7 to 24-11
  - “Input Impedance” ARRL Antenna Book, pp. 24-11 to 24-14

- **Week 2** – for net discussion on 04/15/2010
  
  **Parallel and Coaxial Transmission Lines**
  - “Line Construction and Operating Characteristics” ARRL Antenna Book, pp. 24-15 to 24-23
  - “Coaxial Fittings” ARRL Antenna Book, pp. 24-23 to 24-26
  - “Line Installation” ARRL Antenna Book, pp. 24-26 to 24-27

- **Week 3** – for net discussion on 04/22/2010
  
  **1:1 Baluns and Current Chokes**
  - “Common Mode Transmission-Line Currents” ARRL Antenna Book, pp. 26-17 to 26-21
  - “Eliminating Common Mode” ARRL Antenna Book, pp. 26-21 to 26-28
  - “Chapter 6 – Baluns” A Ham's Guide to RFI, Ferrites, Baluns, and Audio Interfacing (must read for RFI problems)
  - “Striking a Balance” http://www.balundesigns.com/servlet/the-template/Importance%20of%20Baluns/Page
  - “The 1:1 Balun” (optional) Understanding, Building and Using Baluns and Ununs, Chapter 7. Jerry Sevick, W2FMI
    http://www.universal-radio.com/CATALOG/books/0558.html
    http://store.cq-amateur-radio.com/Detail.bok?no=106

- **Week 4** – for net discussion on 04/29/2010
  
  **4:1 and Other Ratio Baluns**
  - “Transmission Line Transformers and Baluns” ARRL Handbook 2010, pages 5-29 to 5-30
  - “Choosing the Correct Balun” From DX Engineering
    http://www.dxengineering.com/techarticlepopup.asp?ID={3E5220F7-2D0F-45B5-85F7-3B654F804C4F}
    http://www.universal-radio.com/CATALOG/books/0558.html
    http://store.cq-amateur-radio.com/Detail.bok?no=106
  - Other Ratio Baluns (optional) Understanding, Building and Using Baluns and Ununs, Chapters 10 and 11. Jerry Sevick, W2FMI

* Sources for high-quality chokes and baluns
  - Balun Designs LLC: http://www.balundesigns.com/servlet/StoreFront
  - Array Solutions: http://www.arraysolutions.com/