Internet Architecture Assignment

Today you will learn about the overall design and layout of the Internet.

http://navigators.com/internet_architecture.html
http://www.howstuffworks.com/internet-infrastructure1.htm
http://www.cybergeography.org/atlas/atlas.html

http://www.caida.org/, http://www.caida.org/projects/internetatlas/gallery/nsfnet/
http://www.isoc.org/internet/

Current Traffic

http://www.internettrafficreport.com/

Generic Info

http://www.arin.net/knowledge/index.html

1. Using the first and second link sketch a drawing that shows users, ISP's, the backbone, and NAP's. The sketch should include the geographic locations of each of the NAPs. Having the sketch resemble or overlaid on an actual map is worth bonus points.
   *Note: a sketch is not a printout of a website. Or even a color printout.
2. Sketch out a rough drawing of World Com's Internet backbone in Canada, Here's a Map. Include data rates as well.

   http://www.canarie.ca/en/network/overview
   http://www.nthelp.com/images/uunet.pdf

   How many hops would it take to reach Toronto (from Edmonton)?

   Which US city would be the quickest to access? (draw map)
3. Traceroute to www.microsoft.com (in the lab), if the trace is blocked by NAIT's firewall perform an outside trace with this service: http://network-tools.com/
4. Optionally, you can perform a visual trace using this utility: http://www.visualware.com/personal/demo/index.html. You have to submit an email address to get a PIN number the first time.
5. You may access a map of Canada's Canarie network at: http://www.canarie.ca/en/network/overview. What is Canarie?
6. Is NAIT connected to Canary? (this might help to answer the question: http://www.canarie.ca/en/network/overview , then click the Connect Institutions Tab)
7. What is the Average Response Time and Average Packet Loss for North America?
8. What routers are currently out of service in North America?
9. Sketch and compare the traffic index for North America and Asia.