How to Save an Unlimited Number of NAACC Crossing Records on an iPad

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Introduction:

The NAACC Offline Data Manager (ODM) stores crossing records in a database that is part of the web browser you use. Apple has put a 50MB limit on how much data you can store in your web browser. This limit translates into roughly 6 – 15 records depending on how many photographs you store in each record. If you have an internet connection in the field, you can upload your records and then delete them in the ODM and then use the ODM to create more records. However, if you are in the field without an internet connection, the only way to store more records using the ODM is to back up your iPad to a separate device that can run iTunes software. The remainder of this document describes the process of backing up to allow you to store large numbers of crossing records in the field using an iPad without an internet connection.

Requirements:

- You will need some sort of laptop or tablet that has a USB port and can run iTunes to store iPad backups. Windows 7, Windows 8 and Windows 10 computers all work.
- Download and install iTunes (http://www.apple.com/itunes/affiliates/download/) on the computer that will store your iPad backups.

Suggested Workflow:

- Although iTunes appears to store multiple backups, it will store only a few backups with different names and then begin to overwrite the last back up. Therefore, you should create appropriately named folders to store each backup. On windows, the iPad backups are stored in the logged-on user's directory (like C:\users\your username\AppData\Roaming\Apple Computer\MobileSync\Backup). You can get there quickly by clicking Start->run and type %appdata% into the run text field. We recommend you create a shortcut to the "Backup" folder on your desktop and store your appropriately named folders in the same folder as the iPad backups. If you think you will need to store many backups in many folders, we have a utility called "CreateBackupFolders.bat" that you can use on Windows to automatically create and name folders.
- Use the ODM in the field to store up to 50 MB of crossing records. The latest version of the ODM has a "Check Storage Space" button that will tell you how much space is left in the database. A single record with 7 photos can be as large as 8MB, while a "Bridge Adequate" record with no photos, no structures and minimal crossing data will take less than 1MB, so you can decide when to stop adding records based on how large you think your next crossing record will be. If you add a record that goes over the 50MB limit, some parts of the record will not be stored, and you will not get any warning. As always, you should save a copy of every record as a PDF in iBooks for safekeeping.

- When you have stored your last record, open iTunes and use your iPad's cable to plug into a USB port on the device you are using for backups. Your iPad's name will appear in a panel on the left side in iTunes. If you right-click the name, you can choose "Back Up" from the menu.
- When the backup has completed, to avoid confusion, we recommend that you cut and paste the backup into the appropriately named folder you created to store it. If you do this, the next time you back up, iTunes will create a new backup file with exactly the same name. If you copy rather than cut the backup file, iTunes will create a backup file with a different name for a few backup cycles and then start to overwrite the last backup. Needless to say, this can be very confusing.
- When you have an internet connection and want to upload your backed-up crossings, you simply restore one of the backups. To restore a backup, first make sure that there is no other backup file directly in the "Backup" folder. Then copy the backup file from one of your named folders and paste it into the "Backup" folder. Right-click your iPad's name in iTunes and choose "Restore from Backup" from the menu. There should be only one choice of files to restore, and that will be the file you just pasted.
- It takes about 2 ½ minutes to restore an iPad backup. When the iPad reboots, you will see a message that says, "press home to upgrade." Clicking the "Home" button will NOT upgrade your operating system, it will merely restore the backup. If you want to be sure that your operating system will not be upgraded, then turn off wi-fi and put the iPad in "Airplane" mode before starting the restore. When the restore is complete, open the ODM, and you will see the crossing records stored in that backup. Upload those records and then restore each backup one by one until you have uploaded all your stored records.