

OVERVIEW

DC-3 Airways (DCA) Training Division (Tng Div)

CAVEAT: The procedures contained herein and in any and all DCA Tng Div documents are for the exclusive use of DC-3 Airways members in order to provide training for those Virtual Airline pilots and are not intended or certified to be correct for use in actual (real life) flying training or actual flight. DCA and the author(s) do not assume any liability the misuse of this information may cause.

Goal: Provide general training on the DC-3 and flying training in the same aircraft for DCA members looking for additional information and expertise.

1. Program Sections

A. General – Training is limited to the DC-3 using FS2004 (FS9) only. Training will take place at and around the Lakeland (KLAL) Florida, USA airport. Adobe Reader (free download) will be needed to read documents.

B. Ground School (Gnd Sch) - written information that will help new and experienced pilots learn more about the DC-3. A large “slide show” will be available for educational purposes. In addition, a self-graded examination is included. There is no cost involved with the Gnd Sch.

C. Flight School (Flt Sch) - actual on-line flying with an "instructor" in the cockpit assisting a “student” will involve Multiplayer, Voice Communications (TeamSpeak) and the ability to share a cockpit (FSNet, or similar software). Each person participating (instructor and student) in Flt Sch training must use designated equipment, which is listed below in Section 2. Equipment. This will require a nominal investment in equipment and software before you can participate.

D. Forum - a dedicated area will be established on the DCA Forum for Q&A, FAQ capability.

2. Documents and Equipment Associated with the Training Division

Instructors	Students/Trainees
Combination headset with boom mike	All items listed for Instructor plus:
TeamSpeak-2 software (communications) available at: http://www.goteamspeak.com/news.php Free at the current time	IFR Hood (cardboard)
FSNet software (2 pilots in “same” cockpit) available at: http://www.gates.to/go.php Currently free, but it may go shareware in the future (price to be \$39.99 USD) **	Flt Sch Documents, listed in section 4. Documents below
Standard aircraft model. See section 4. Documents	
Standard instrument panel See section 4. Documents (below)	
Online flying procedures (Ray Grigson’s document – DCA Download)	
Standard IFR Approach plates (ADF, VOR, ILS). See Section 4. Documents (below)	
Tng Div Documents - See Section 4. Documents (below)	
Adobe Reader (free), software to read/print documents, approach plates, etc.	

** In December 2005, FSNet/Copilot became payware. The full version is \$39.99 USD and has no time limitations and will accommodate 8 players at a time. However there are less expensive versions.

For \$5.99 USD, you can buy a package that is a full version but only allows 5 hours of use. The next step up is priced at \$9.99 USD. This one is a “lite” version, allows unlimited time usage, but is limited to 2 pilots at a time. It appears that the \$9.99 USD version will do the job for the Training Division.

3. Training Division Philosophy

- A. Language – English will be the primary language used for training in this division. Exception – if a student and an instructor have a language in common, other than English, Flight School (Flt Sch) instructor/student flying sessions can be conducted in that language.
- B. Flight School Scheduling – The Tng Div manager(s) will maintain a list of Instructors. Information on instructors will include: Name, Email Address, Geographic Location and Time Zone (GMT hours +/-). Tng Div manager(s) will not be responsible for matching student to instructor or scheduling actual flight training sessions.

The list of instructors will be disseminated to the DCA membership and it will be the responsibility of a potential Student to contact an Instructor and work out a schedule for flight training.

- C. Aircraft and Panels – The Flt Sch will use FS2004 only. We will set a standard for the aircraft model to be flown on Instructor/Student training flights. A standard instrument panel will also be selected and installed.

Rationale: It will facilitate training if both the Instructor and Student (sitting at computers in different geographical locales) are flying the same plane and looking at the same panel.

- D. Instructors – Tng Div Manager(s) will interview and fly with Instructor Applicants before they are certified. Ability to fly the aircraft and procedures in the air are important. Even more important is demeanor and the ability to communicate.
- E. Flight School Procedures – The easiest approach to training in simulated weather is to use a “hood” for the student. This will negate having to set weather for various flights. Set to Day – VFR (weather to clear and visibility unlimited (CAVU) and leave it at that for all training phases). A monograph describing how to create a hood, for a few pennies, is included as part of the Tng Div package.

There will be four “saved” flights included in the Tng Div package. These are: 1) Ramp with engines shut down, 2) Departure Runway with engines running, 3) Departure Runway with engines running and a crosswind component and 4) Airborne in the local area at 4,000 feet. See section 4. Documents.

These files are included to allow the pilots to get to a lesson in a minimum amount of time. See section 4. Documents below for further detail.

4. Documents included in the Tng Div package (located in [folder] name

Subject	Detail	File name
Located in: [IFR] folder		
IFR Training -- Instrument approach plates	KLAL – ILS Rwy 05 KLAL – NDB Rwy 05 KLAL – VOR Rwy 27 KLAL – VOR Rwy 05	klal_ils_5.pdf klal_ndb_5.pdf klal_vor_27.pdf klal_vor_5.pdf
KLAL Airport	Ramp/Runway Diagram	klal_diagram.pdf
Located in: [GroundSchool] folder		
DC-3 Checklists	Checklists, specification sheets, keyboard command sheets	td_dc3_checklist.pdf
Lower the learning curve	How to create keyboard command sheets and keyboard templates	td_lower_learning_curve.pdf
ADF Navigation	Tracking inbound and outbound using the ADF (or VOR) needle	td_nav_adf.pdf
Instrument Hood	Creating a “hood” from a manila file folder	td_hood.pdf
Procedure Turns	How to execute various procedure turns	td_procturn.pdf
Short Field Landings	How to execute short field landings	td_short_field.pdf
Stalls	How to recognize and recover from stalls	td_stalls.pdf
Touch & Go Landings	How to execute touch and go landings	td_touchgo.pdf
Auxiliary Airfield	How to locate and orient yourself at South Lakeland Airport	td_south_lakeland.pdf
Vertical Velocity Indicator	Instrument quirks	td_vvi.pdf
Ground School Exam	Including answer sheet	td_gnd_sch_exam.pdf

Subject	Detail	File name
Located in: [Flts_Nav] folder		
FSNav map (Copy file to the "Plan" folder under FSNav)	FSNav map of Lakeland airport area	TD-KLAL.fsn
<p>FS2004 Saved Flights</p> <p>These files must be copied to the "Microsoft Flight Simulator" folder under your "My Documents" folder</p> <p>If unsure, search your hard drive for: *.FLT to determine the proper location.</p>	Ramp – engines shutdown	TD-KLAL-Ramp.FLT TD-KLAL-Ramp.WX
	Departure Runway 27, engines running	TD-KLAL-Runway.FLT TD-KLAL-Runway.WX
	Departure Runway 27, engines running & crosswinds (Gnd 300 at 10 kts, Aloft 330 at 15 kts)	TD-KLAL-Runway-Xwind.FLT TD-KLAL-Runway-Xwind.WX
	Local area, 4,000 feet, 20 nm North of KLAL, south bound	TD-KLAL-LocalArea.FLT TD-KLAL-LocalArea.WX
Flight School Outline, training categories	Training areas instructors should be prepared to cover for VFR & IFR	td_tng_proc_categories.pdf
Located in: separate folder/file - Named		
Aircraft model	Standard airplane and instrument panel	td_aircraft.zip
Ground School Slide show	PowerPoint presentation converted to Adobe PDF format and zipped (40 mb)	Operate_the_DC-3.zip

5. Logging Flying Time

Determine flying time — The rules are loose due to the complicated nature of the software programs in use. Use common sense and DCA will rely on your honesty. Flying time will include more than “time in the air” and is not necessarily based on engine start, brake release, landing time, engine shutdown, etc.

Participants should log onto communications together via Teamspeak, establish a multi player (MP) session via FS2004 and join the cockpits via FSNet (gates.to). Players may begin logging flying time at this point irrespective of which pilot is Pilot Flying and which is Pilot Not Flying. If MP or FSNet problems occur, you may keep logging “flying time” until the problems are resolved (within reason) and training resumes. Continue this one session until both pilots terminate the training session.

At the end of a flying session, the instructor and student should confirm the duration of the flight and be sure you know the other pilot’s DC3 Pilot Number. Each pilot may submit a PIREP for flying time credit. The PIREP will be similar to normal PIREPs. For route number information, use “TD-xxxx” where xxxx is the pilot number of the other pilot.

DCA Certified Flight Instructors (DCACFI) may log two for one for session hours and get double the flying time.

A. Manual PIREP System

Example: John Achor, DCACFI (DC3-0324) flies as an instructor with student pilot, Tom Smith (DC3-9999) for a flight duration of one hour.

PIREP Format (standard DCA format):

Your DC3 Pilot Number, Total flying time including this flight, PIREP, Your Last name, Route Number [TD-(other pilot’s DC3 Pilot Number)], Flying time for this flight in minutes

In the example above, DCA would receive two PIREPs as follows:

From the instructor (double flying time):
0324, 1000.8, PIREP, Achor, TD-9999, 120

From the student:
9999, 110.5, PIREP, Smith, TD-0324, 60

B. Automated PIREP System (implemented late 2005 and early 2006)

The automated system consists of five boxes to complete: (1) DC3 Airways Pilot number, (2) Pilot Name, (3) Flight Number, (4) Minutes Flown, and (5) Comments (if applicable).

The example remains the same: John Achor, DCACFI (DC3-0324) flies as an instructor with student pilot, Tom Smith (DC3-9999) for a flight duration of one hour.

Two PIREPS will be submitted and they are shown below in vertical format as they are found on the DCA PIREP submission page:

From the instructor (double flying time):	From the student:
(1) 0324	9999
(2) John Achor	Tom Smith
(3) TD-9999	TD-0324
(4) 120	60
(5)	

6. Aircraft Idiosyncrasies

A. The model/panel used is complex and may be slow to load.

B. Engine start procedures are not totally true to life. Some of the start switches are not available. Use these steps as a viable work-around:

- Battery & Avionics Switches – ON
- Throttle – 1/4 OPEN
- Mixture controls – Full Rich
- Magneto Switches – ON
- Select Engine #2 – press E, 2 (E key then 2 key)
- Press CTRL + E (to start Engine #2)
- Select Engine #1 – press E, 1 (E key then 1 key)
- Press CTRL + E (to start Engine #1)
- Press E, 1, 2 (E key, then 1, then 2) to reselect both engines
- Continue the checklist

C. Rudder Trim Switch

The panel creator tied the rudder trim switch to the Cowl Flaps and I'm no flight sim programmer. I substituted a two-piece trim switch (from the Mooney). Clicking on the Trim Indicator (top part) still affects Cowl Flaps however using the lower rocker switch does set rudder trim.

D. Cowl Flaps can be operated using the mouse (panel hot spots) or these keyboard commands:

Close = CTRL + SHIFT + C

Open = CTRL + SHIFT + V