Brown Field Midair Collision
San Diego, CA
August 16, 2015
WPR15MA243AB

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

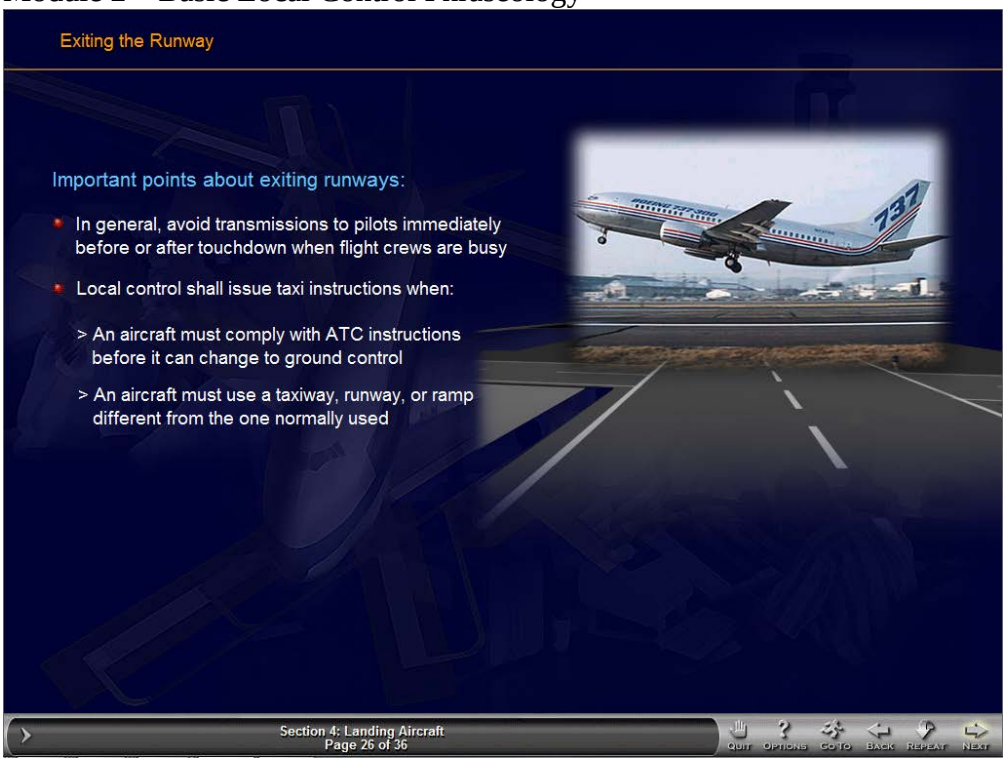
ATTACHMENT 1

Controller Training Excerpts

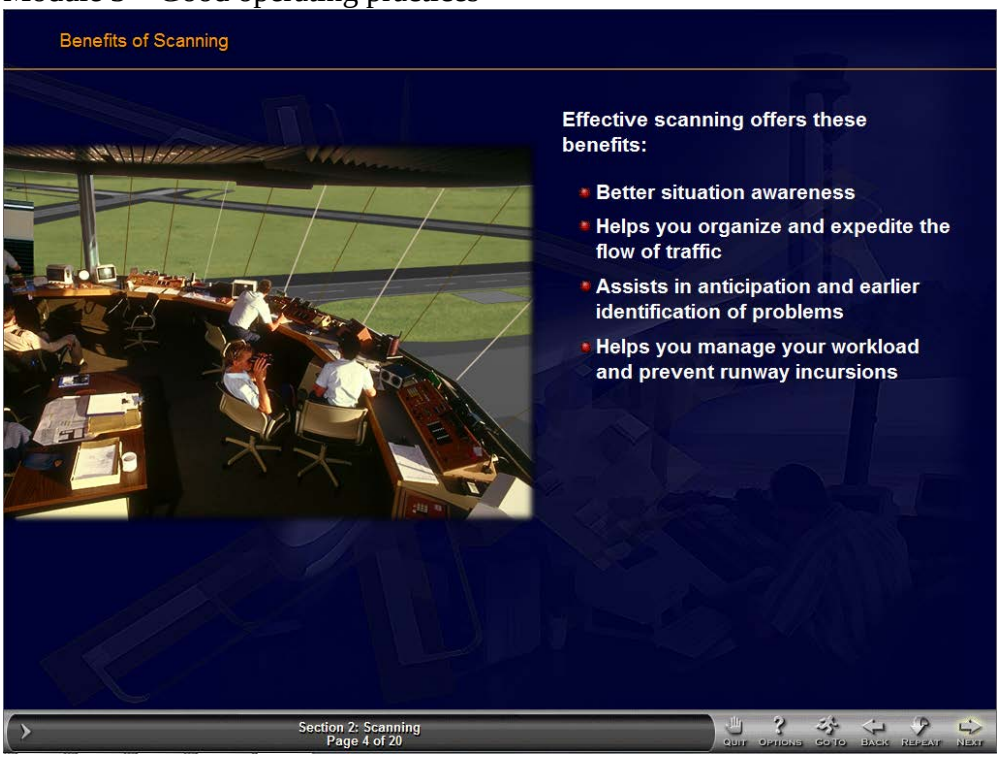
(6 pages)

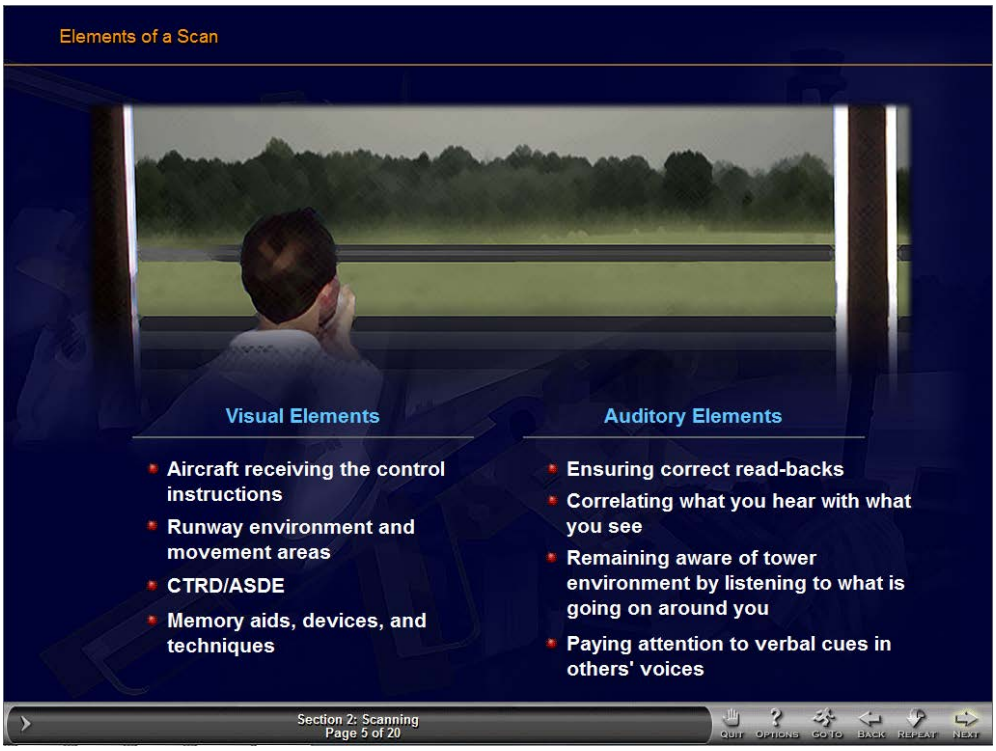
Excerpts from “Runway Separation Minima” training, provided July 2015:

Module 2 – Basic Local Control Phraseology



Module 3 – Good operating practices




Elements of a Scan
Visual Elements
Aircraft receiving the control instructions
Runway environment and movement areas
CTRD/ASDE
Memory aids, devices, and techniques
Auditory Elements
Ensuring correct read-backs
Correlating what you hear with what you see
Remaining aware of tower environment by listening to what is going on around you
Paying attention to verbal cues in others' voices
Section 2: Scanning
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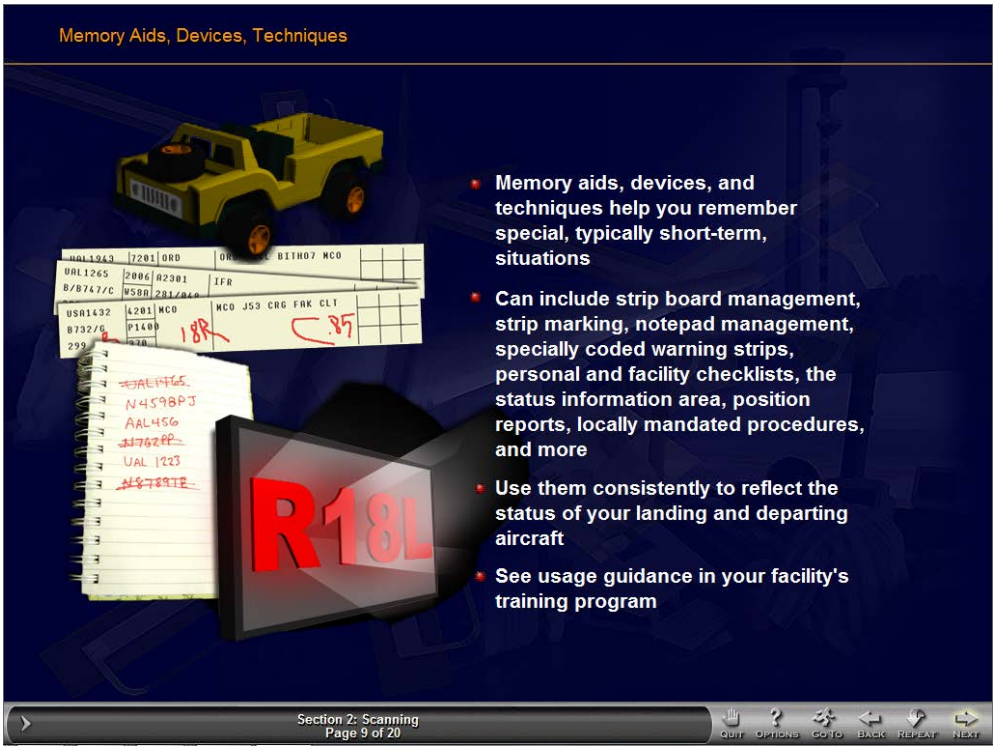
QUIT
OPTIONS
GO TO
BACK
REPEAT
NEXT


Memory Aids, Devices, Techniques
Memory aids, devices, and techniques help you remember special, typically short-term, situations
Can include strip board management, strip marking, notepad management, specially coded warning strips, personal and facility checklists, the status information area, position reports, locally mandated procedures, and more
Use them consistently to reflect the status of your landing and departing aircraft
See usage guidance in your facility's training program
R18L
Section 2: Scanning
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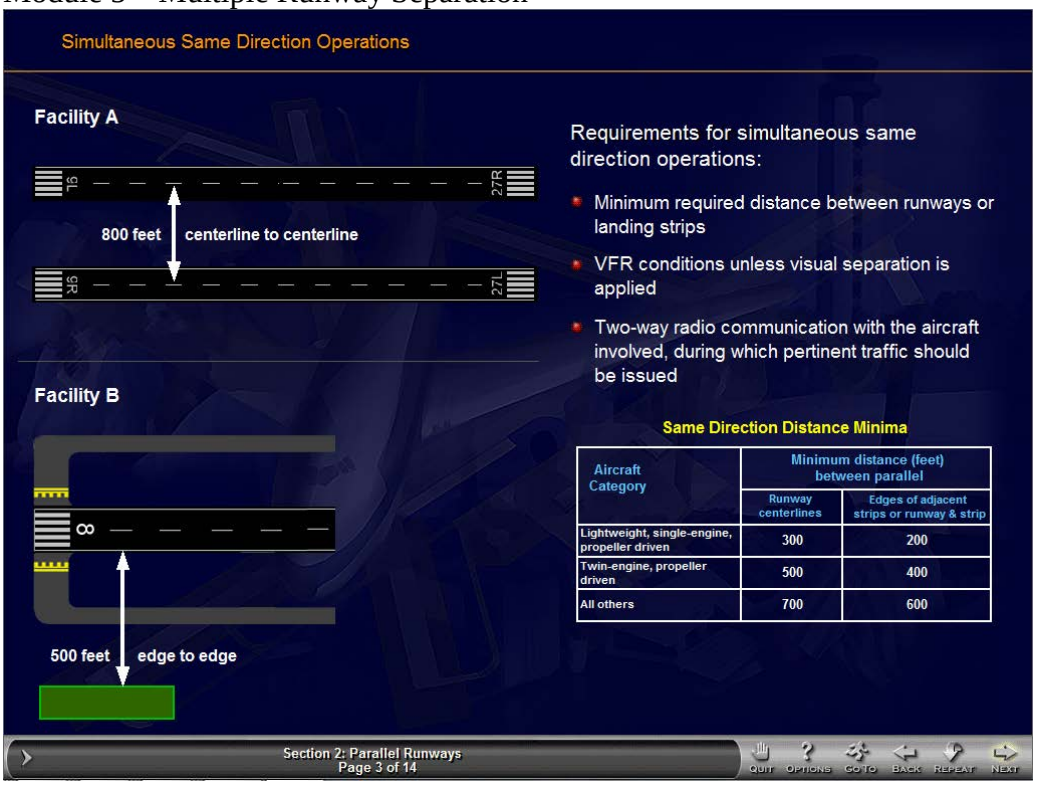
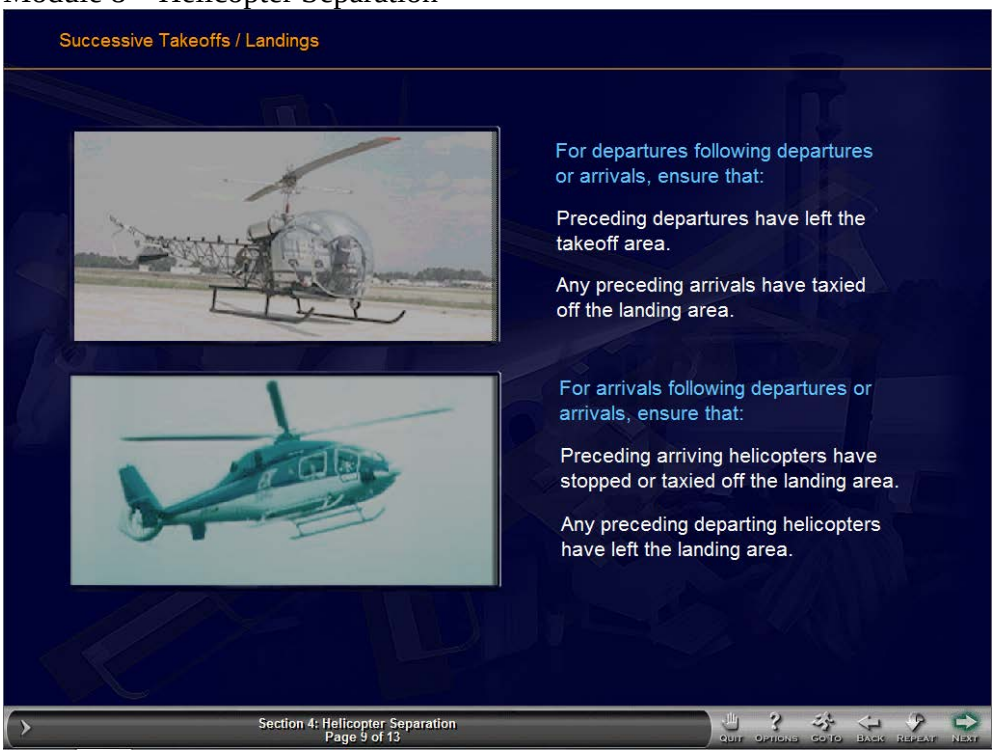
QUIT
OPTIONS
GO TO
BACK
REPEAT
NEXT

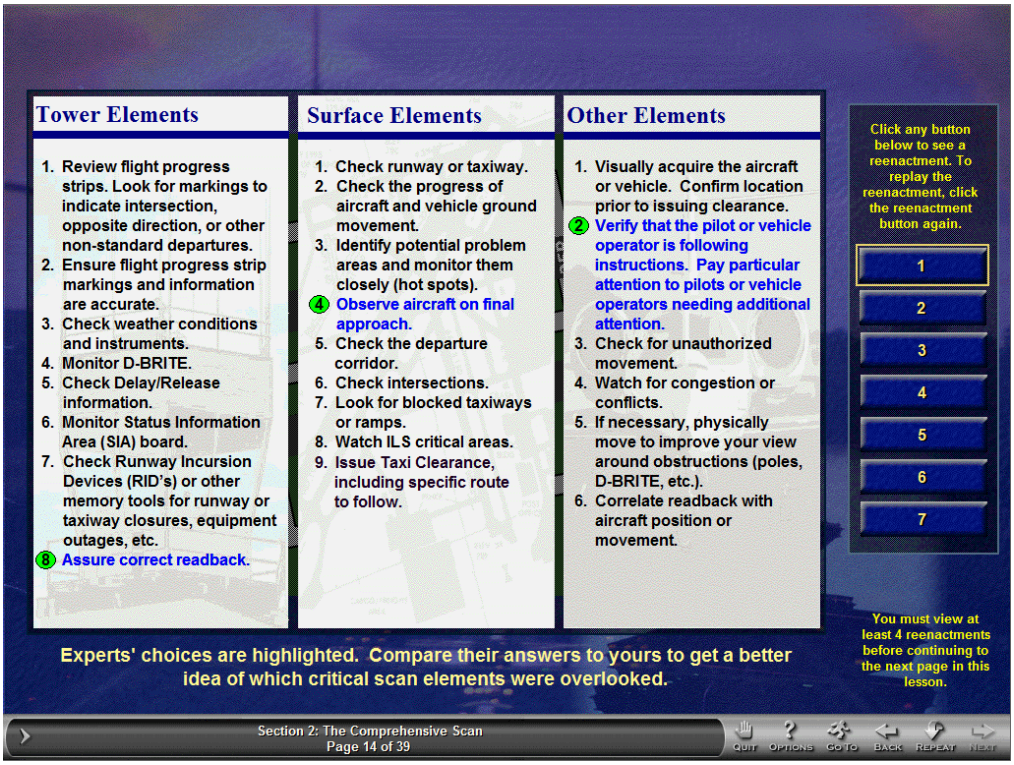
Module 5 – Multiple Runway Separation



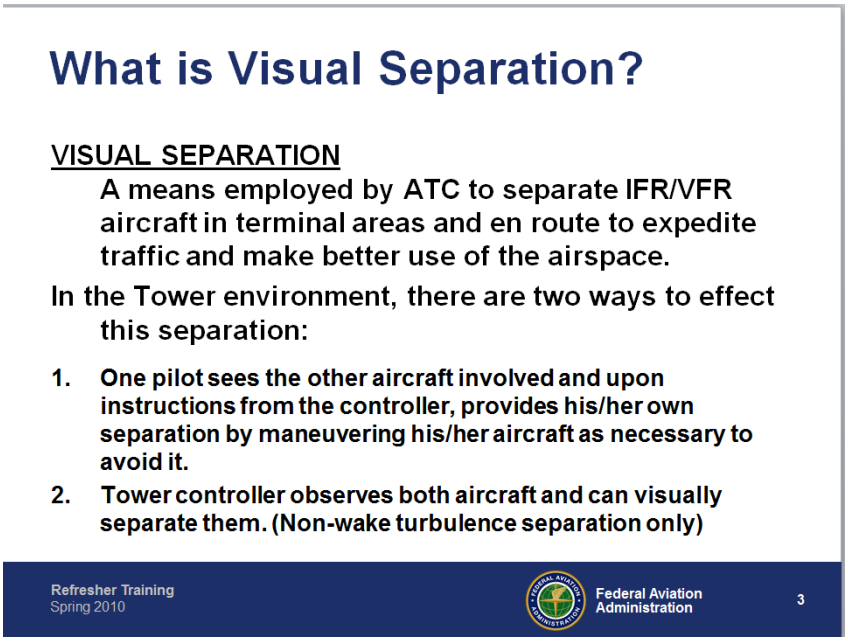
Module 8 – Helicopter Separation



Excerpt from “Situational Awareness” training, provided October 2014:



Excerpts from “Visual Separation” training, provided July 2015:



Visual Separation

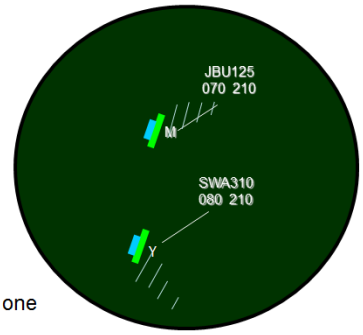
Aircraft may be separated by visual means when other approved separation is assured before *and after* the application of visual separation.

- To ensure that other separation will exist, consider aircraft performance, wake turbulence, closure rate, routes of flight, and known weather conditions

If visual separation is lost, assign a heading and/or altitude to re-establish standard IFR separation.

Visual Separation

Visual separation may be applied between aircraft under the control of the same facility within the terminal area.



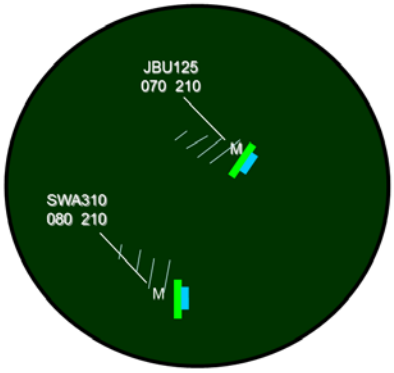
Communication is maintained with at least one of the aircraft involved - or -
The capability to communicate immediately as prescribed in Para 3-9-3, Departure Control Instructions, Sub-Para a2 is available.
(The aircraft or sector you need to communicate with is available)

Visual Separation

Provided (continued):

A pilot sees another aircraft and is instructed to maintain visual separation from the aircraft as follows:

- Tell the pilot about the other aircraft including position, direction and, unless it is obvious, the other aircraft's intention.
- Obtain acknowledgment from the pilot that the other aircraft is in sight.
- If the aircraft are on converging courses, inform the other aircraft of the traffic and that visual separation is being applied.



If the pilot advises he/she has the traffic in sight and will maintain visual separation from it (the pilot must use that entire phrase), the controller need only "approve" the operation instead of restating the instructions.

Visual Separation Review

- Once a pilot advises he/she has the traffic in sight and will maintain visual separation from it, the burden of separation becomes the responsibility of that pilot.
- Standard separation must be assured before *and after* the application of visual separation
- To clear for a visual approach the pilot must:
  1. Be #1 for arrival and have the airport in sight
  - or -
  2. Have the preceding aircraft in sight and can follow it