

# *Gestures*



CS5540 *HCI*  
Rich Riesenfeld  
Fall 2011

# Gestures Studies

Parts of following gesture material from:

**Hand Centered Studies of Human  
Movement Project, *School of  
Kinesiology, Simon Fraser  
University, February 1996***

# Gestures-1

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- Praying (two flat hands up together)
- Begging (flat hand)
- Expressing anger (raising a fist)
- Derogation (middle finger up)
- Accusation (index pointing)
- Live or die decisions in the Roman amphitheater (thumb up/down)

# Gestures-2

Hitch hiking (thumb up, hand moving sideways)



# Gestures-3



Legal and business transactions (handshake, judge hammering)



# Gestures-4

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Pointing to real and abstract  
objects and concepts  
(index, hand)



# Gestures-5

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Waving and  
Saluting



# Gestures-6



Waving and  
Saluting



# Gestures-7

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## Finger Counting



Thumb often used for  
“1”, esp abroad

# Gestures-8

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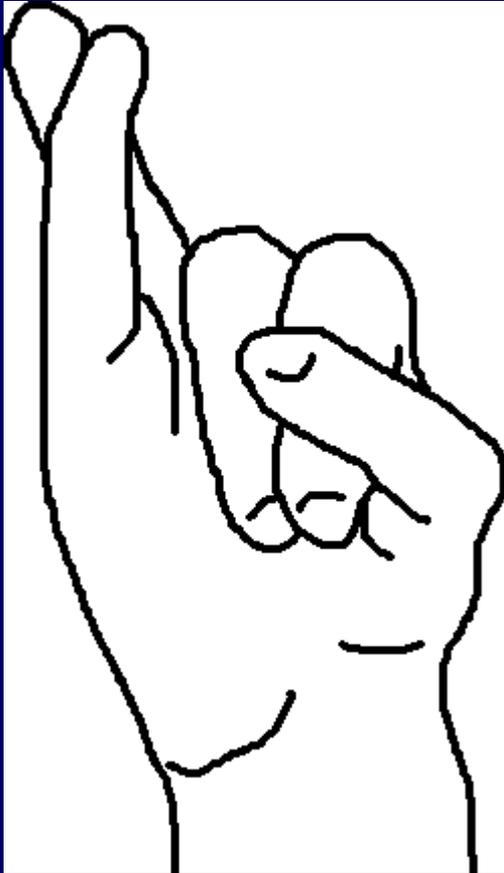
I beg of you ...

I hope so ...



# Gestures-9

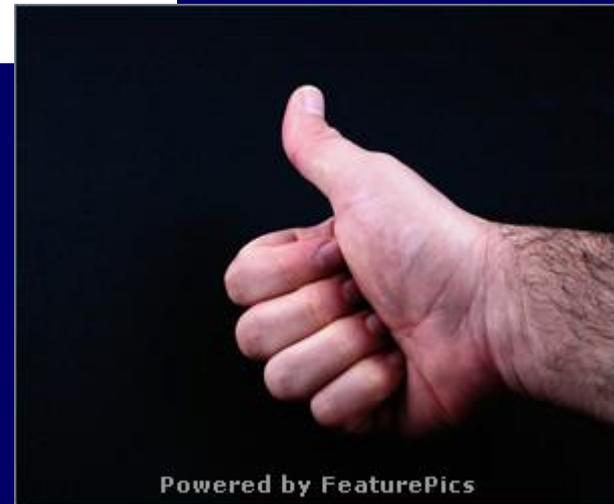
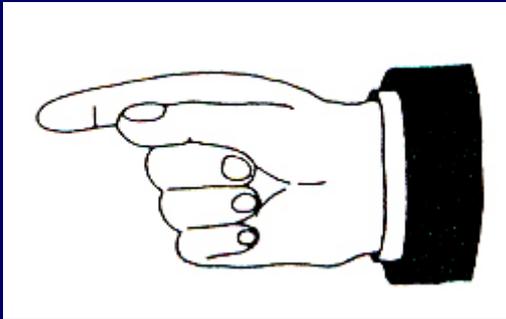
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Let's hope its true

# Gestures-10

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# Gestures-11

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# Gestures-12

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Terminate/cut

# Gestures-13

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Love (Am Sign Language)

# Gestures-14

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Whoa, stop, ...



End

# Gestures-15



Trading Floor  
Hand Signals



# Gestures-15

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put



call



out

## Trading Floor Hand Signals



september



june

# Gestures-16

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- Conducting an orchestra (variety of both gestures with arms and body)
- Traffic control of cars and airplanes (hands flat pointing or moving)
- Shaping of imagined objects (hands tracing out curves and shapes)
- Martial arts, fighting (variety of movements of arms and body)

# Successful Example



# Gestures-17

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- Dance (Balinese dancing)
- Gesturing by singers (hand and body movements)
- Stock exchange transactions (hand signals)
- Affective gestures (hand touching)
- Rejective (index up moving left & right) / appreciative (hand clapping) gestures p

# Gestures-18

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- Game playing (hand signs to communicate with partner in card games as casinos)
- Game scoring (cricket, basketball, soccer, rugby, football)
- Dinner table actions (commanding waiter to refill wine glass)
- Positioning of real (remote or close) Control Panel operations (mousing, steering a vehicle)

# Gestures-6

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- Moving, touching and interacting with objects
- Silent and non-verbal communication (shrugging, holding one's own earlobe, scratching)
- "Italianate" gestures (two hands open shaking)

# Gestures-7

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- Mimicry and pantomime (actions and objects are depicted with hand/body movements)
- sign language (a complete linguistic communication system)
- Mimicry and pantomime (actions and objects are depicted with hand/body movements)

# Gestures-8

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- Shimmering hand (maybe, maybe not)
- Sign language (a complete linguistic communication system)
- Aircraft carrier landings
- Dog training
- Gambling signals at a casino

# Pictograms - 1

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# Pictograms - 2

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# Pictograms - 3

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# Pictograms -4

## Transport for London



Pictogram standard

MAYON OF LOND ON



# Pictograms - 5

## Transport for London

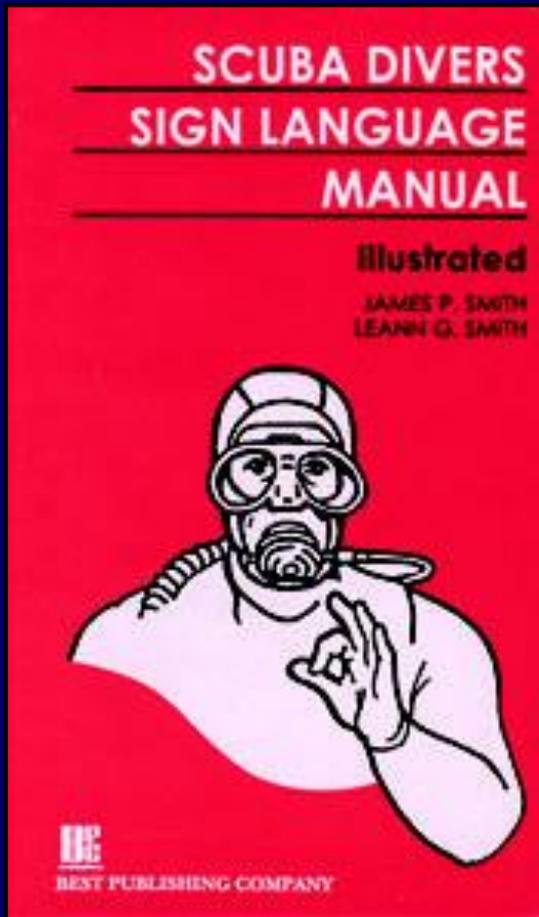


Pictogram standard

MAYOR OF LONDON



# Special Need Group: Divers



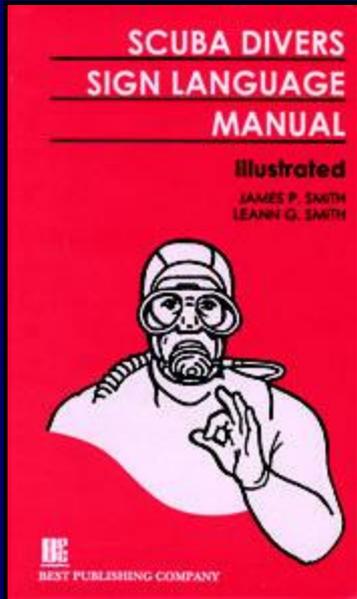
“Help”



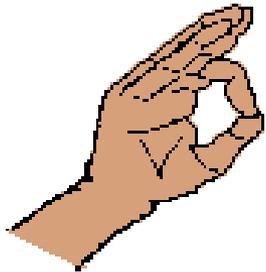
“Which direction?”



“Boat”



# Underwater Communications and Hand Signals - 1



(Are you) OK?



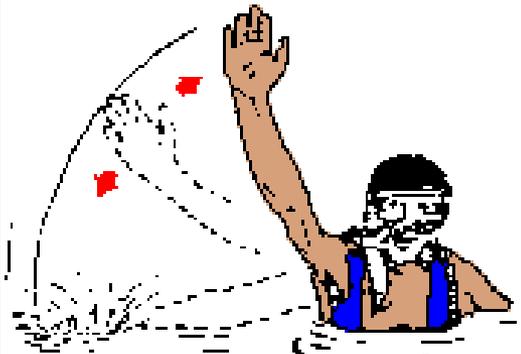
(Yes, I am) OK!



OK? or OK! (ON SURFACE)



OK? or OK! (ONE ARM OCCUPIED)



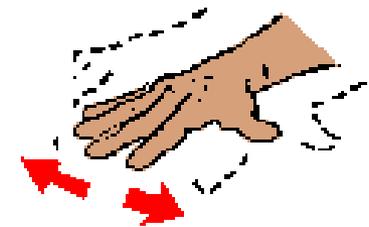
**HELP! EMERGENCY**



**TROUBLE**  
(POINT TO AREA OF TROUBLE  
SHAKE HEAD NO)

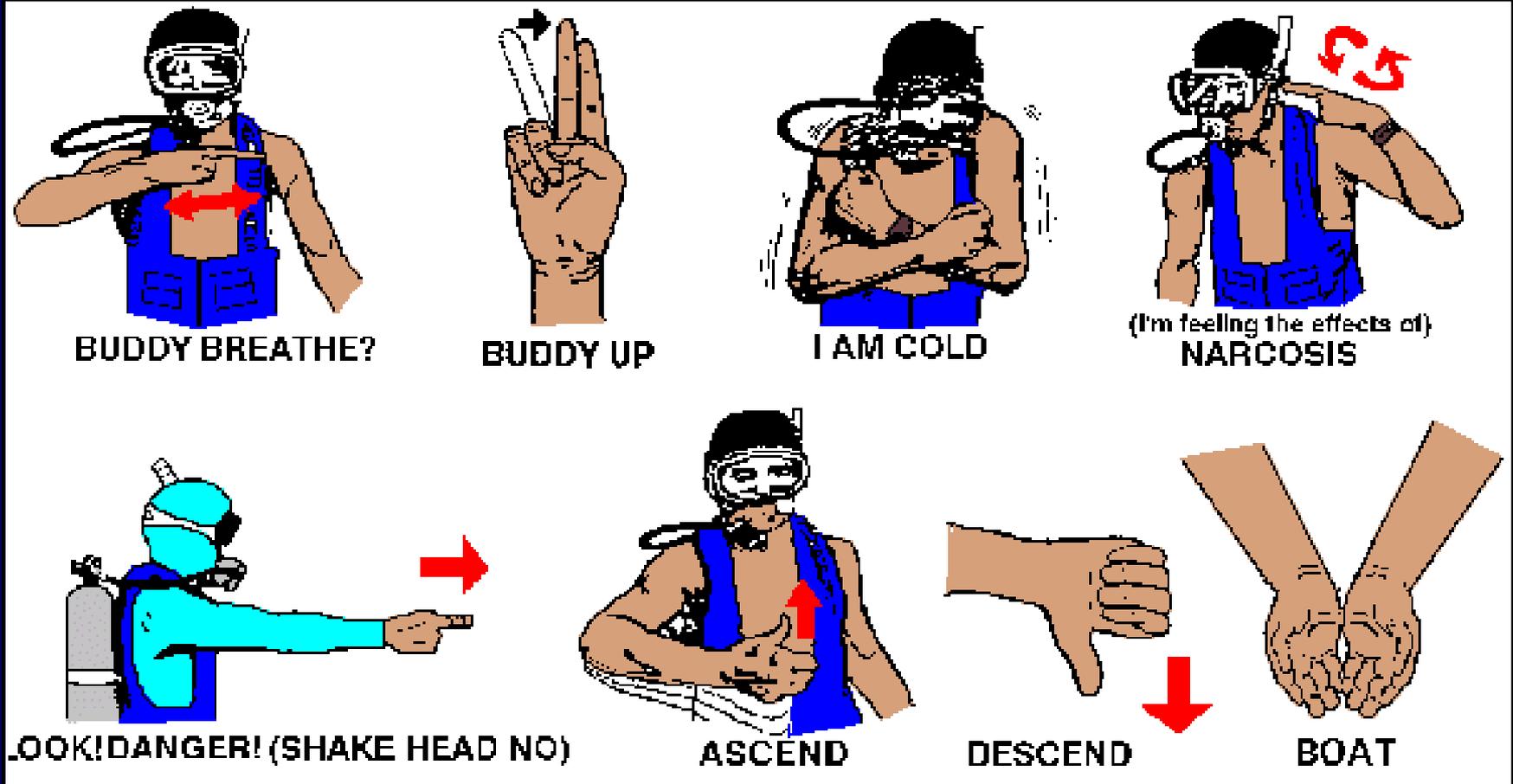


**STOP, HOLD**

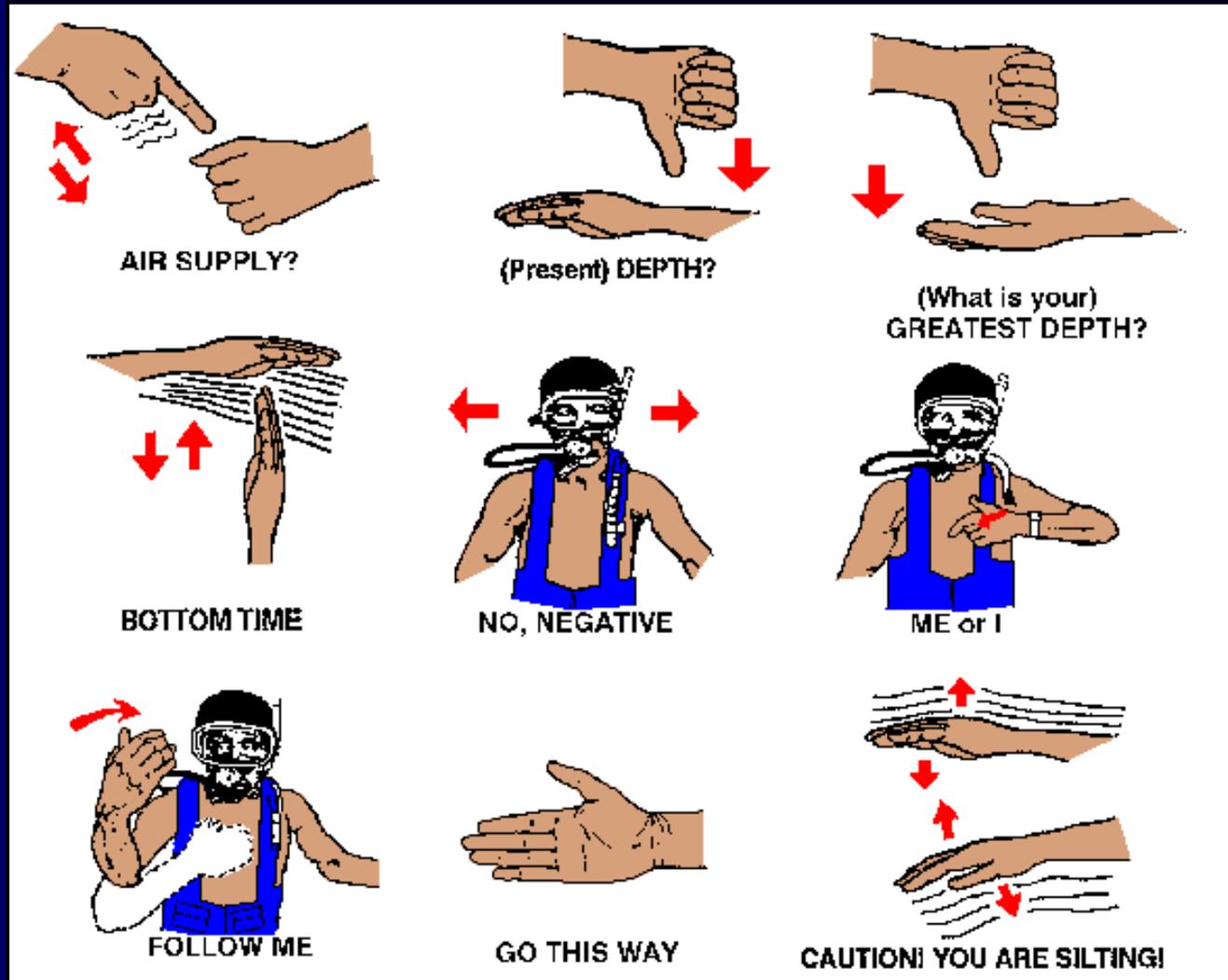


**THIS LEVEL**

# Underwater Communications and Hand Signals - 2



# Underwater Communications and Hand Signals - 3



# ARFF Emergency Hand Signals - 1

## Aircraft Rescue and Fire Fighting (ARFF) Communications

# ARFF Emergency Hand Signals - 2



RECOMMEND EVACUATION - Evacuation recommended based on ARFF IC's assessment of external situation.

Arm extended from body, and held horizontal with hand upraised at eye level. Execute beckoning arm motion angled backward. Nonbeckoning arm held against body.

NIGHT - same with wands.

## Recommend Evacuation

# ARFF Emergency Hand Signals - 3



RECOMMEND STOP - Recommend evacuation in progress be halted. Stop aircraft movement or other activity in progress.

Arms in front of head -  
Crossed at wrists.

NIGHT - same with wands.

## Recommend Stop

# ARFF Emergency Hand Signals - 4



EMERGENCY CONTAINED - No outside evidence of dangerous condition or "all-clear."

Arms extended outward and down at a 45 degree angle. Arms moved inward below waistline simultaneously until wrists crossed, then extended outward to starting position (umpire's "safe" signal).

NIGHT - same with wands.

## Emergency Contained

Now,  
hear this,



*Audio clip: Clear the deck and prepare to launch announcement*

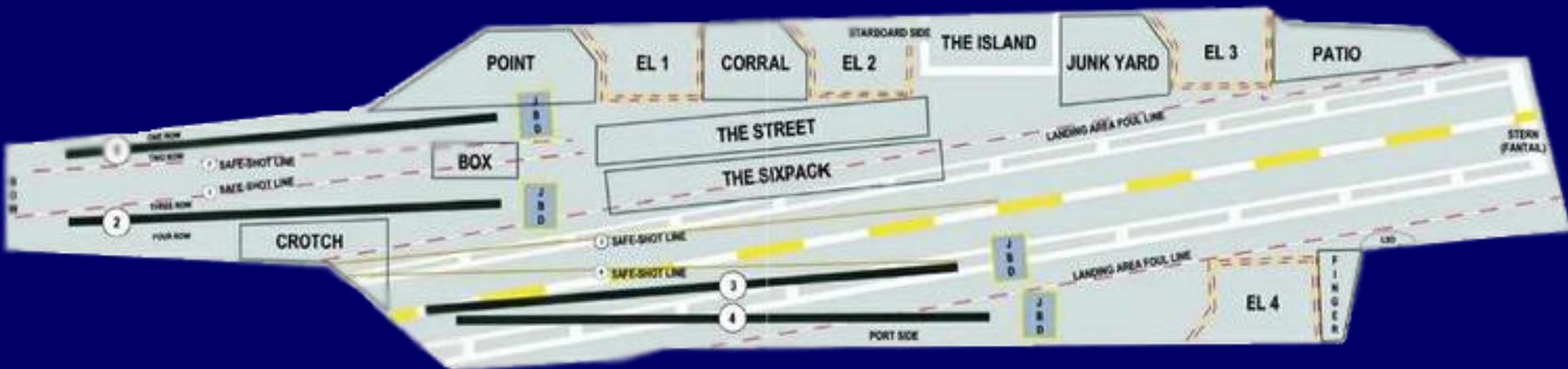
Now,  
hear this,



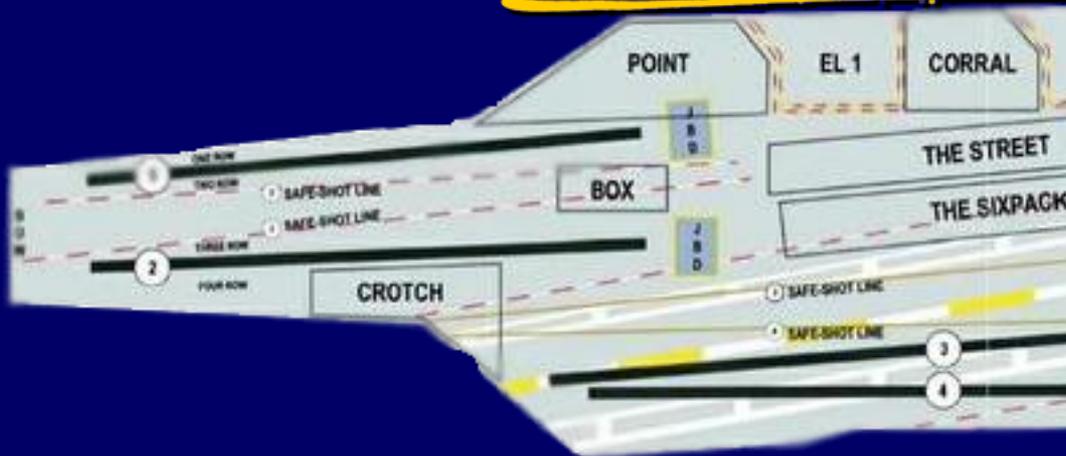
# Aircraft Carrier Deck Operations



# Flight Deck Organization-1

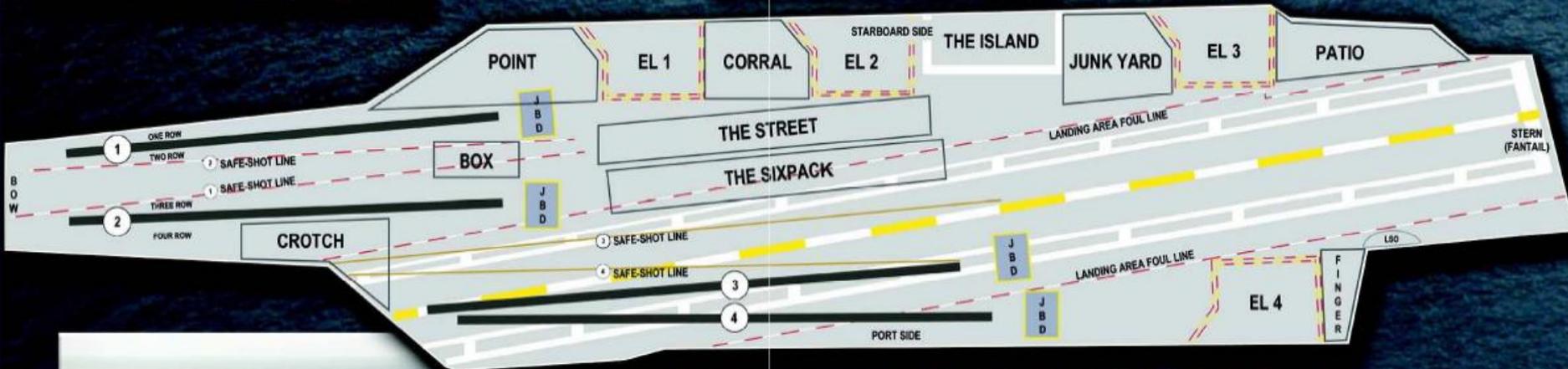


Aircraft traffic flow  
using angle deck



# Uniform Colors-1





Flight Deck Awareness Fourth Edition

Illustration by Matthew J. Thomas



# Uniform Colors-2

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Yellow Shirts: Flight Deck Officers and Plane Directors

Green Shirts: Catapult and Arresting Gear people

Red Shirts: Aviation ordnance crews.

Checker Shirts: Squadron maintenance

White Shirts: Flight deck medical corpsmen  
(w Red Cross):

# Uniform Colors-3

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Blue Shirts: Flight Deck Crew

Brown Shirts: Squadron personnel

Purple Shirts: Aviation fuels people

White Shirts: Mail and people handlers

White Shirts: Flight deck medical corpsmen  
(w Red Cross):

# Plane Director Uses Hand Signals to Give Direct



# Plane Director Using Hand Signals - 2



<Flight Dec

Cat video.a



Ready for Launch

# B & O Touchless Remote - 1

Bang & Olufsen

(see folder of neat material in  
resource folder)

# Conclusions

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- Like poetry, extraordinarily *succinct*
- Can be highly *Universal, International*
  - Subject to bad cultural misinterpretations
- Increasingly widespread use
  - Olympics
  - Travel
  - Commerce

# *Gestures*



End

# BOOKMARK

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Complete  
Final Turn  
Up  
(Instructions to pilot)



Brakes off  
or Brakes  
On



Suspend Catapult  
Operation



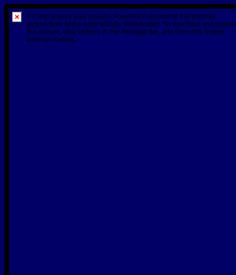
All Clear or  
Affirmative

(Fist clenched =  
Suspend Operation)



The pilot salutes when ready to launch.  
The Plane Director returns salute to acknowledge pilot's readiness.

Lower  
Launch Bar  
or Raise  
Launch Bar



I have control.  
(Taking over  
from  
previous  
controller)



Hang Fire  
(Pilot to hold on  
until further  
instructions)

# BOOKMARK

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# Logitech Harmony 900

<http://www.youtube.com/v/RmhtFk2zCmM?version=3>







