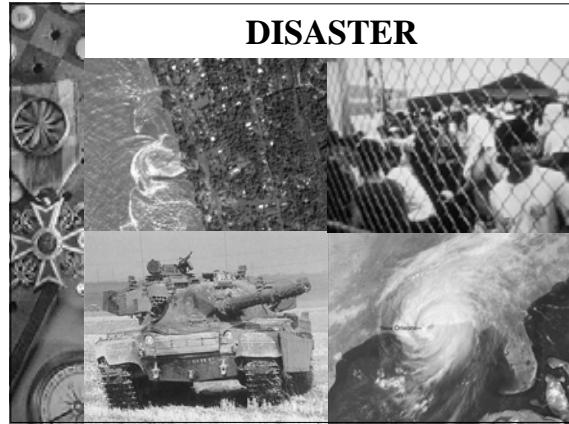


SPECIAL NEEDS POPULATIONS IN DISASTER RESPONSE



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ALABAMA 2009 VOLUNTEER SYMPOSIUM

DISASTER



OVERVIEW

- ◆ Introduction to special needs
- ◆ Culture & lifestyle
- ◆ Challenges
- ◆ Tools
- ◆ Management



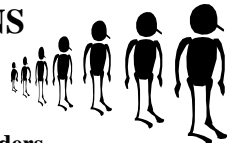
DISASTER

- ◆ Emergency
 - Realignment of priorities
 - Change of process & guidelines
 - Redefined standards for outcomes
- ◆ Disaster
 - Local resources inadequate
 - Modified standards achievable
- ◆ Catastrophe
 - Adequate resources unavailable
 - Fight to maintain orderly application of assets



POPULATIONS

- ◆ Authorities
- ◆ Population of responders
- ◆ Population at risk
- ◆ Population at large
- ◆ Special needs frequencies can be estimated



HEIRARCHY OF NEEDS

KIBEHO REFUGEE CAMP, RUWANDA, 1994

- ◆ Safety
- ◆ Water
- ◆ Food
- ◆ Shelter/heat
- ◆ Clothing
- ◆ Medical care
- ◆ Employment



JTF SAFE HAVEN PANAMA 1995



HEIRARCHY OF NEEDS

- ◆ Companionship
- ◆ Family envmt.
- ◆ Stability
- ◆ Social status & advancement
- ◆ Child development
- ◆ Care of elders
- ◆ Mid & long term plans

SCHOOL ART KOSOVO

MEETING HUT, EMPIRE RANGE, JTF SAFE HAVEN

PURPOSE

- ◆ That Others May Live

PRINCIPLES

- ◆ Keep the Science Straight
- ◆ Realistically evaluate threats & assets
- ◆ Rationally develop specific plans
- ◆ Identify needs
 - Doctrine
 - Organization
 - Communications
 - Equipment
 - Training
- ◆ Speak with one voice

WORLD TRADE CENTER

ACTION PHASES

READINESS

- ◆ 1. Prevention
 - Shape the battlefield
- ◆ 2. Preparation
 - CONOPS, assets & infrastructure
- ◆ 3. Surveillance
 - Scope, sensitivity, reliability, security & cycle time
- ◆ 4. Identification
 - Specificity, confidence, immediacy

ACTION PHASES

EXECUTION


- ◆ 5. Notification
 - Timely, Robust, Orderly, Functional
- ◆ 6. Marshalling
 - “Firstest with the Mostest”
- ◆ 7. Early Response
 - Effective, Professional, Orderly

ACTION PHASES

EXECUTION


- ◆ 8. Full Response
 - Big as it needs to be to minimize casualties
 - Delicate as a battleship
- ◆ 9. Mop Up
 - Thorough, Quick, Disciplined

ACTION PHASES RECOVERY




- ◆ 10. Clean Up
 - Hierarchy of needs
- ◆ 11. Reconstitution
 - Ready to go again
- ◆ 12. Convalescence/Healing
 - Return of functions

ACTION PHASES RECOVERY




- ◆ 13. Rebuilding
 - For the future not the past
- ◆ 14. Prevention
 - Shape the Battlefield

CULTURE & LIFESYLE



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LANGUAGE



- ◆ Literacy
 - What level
- ◆ Spoken
 - Formal
 - Dialect
 - Patois
 - Jargon or street
- ◆ Written

LANGUAGE MINORITY


- ◆ Those who are unable to speak the language will be at a disadvantage in regards to;
 - Warnings
 - Relief-information
 - Instructions
 - Job opportunities
 - Enrollment processes
 - Reimbursement requirements
 - Other factors



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007

ILLITERATE

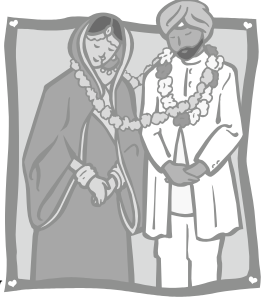
- ◆ The same problem exists for the illiterate
- ◆ Not be able to benefit from any printed material
 - Describing benefits or
 - Providing instructions,
 - Fill out application forms or
 - Register for assistance



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007





CUSTOMS

- ♦ Authority
- ♦ Hierarchy
 - Class
 - Status
 - Power
- ♦ Social Roles
 - Sex
 - Age
 - Tribe/family
- ♦ Violence




VALUES & NORMS

- ♦ Religious
 - Christian
 - Moslem
 - Jewish
 - Hindu
 - Buddhist
 - Animist
 - Pagan
 - Atheist
- ♦ Tribal
- ♦ Occupational
- ♦ Caste
- ♦ National/Patriotic
- ♦ Racial
- ♦ Familial

IMMIGRANTS

- ♦ Residents without legal status
 - “Permanent” illegals
 - Some encouraged by country of origin
 - Transient workers
 - Bad guys
 - Gangsters
 - Smugglers
- ♦ Those with legal status but newly arrived in the country
- ♦ Relatives
- ♦ Unregistered children



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007

IMMIGRANTS


- ♦ Complex array of obstacles, including;
 - Language barriers,
 - Bureaucratic rules and regulations
 - Fear of military assistance,
 - Fear of deportation &
 - Not being included in long term recovery efforts



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007

IMMIGRANTS

- ♦ Lack of integration of religious customs can also contribute to social unrest
- ♦ Recent immigrants from Middle East
 - May follow religious norms of modesty and separation of the sexes
 - Usually are not accommodated in emergency shelters
 - Who participates in community activities



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007

TRANSIENTS, NEWCOMERS AND TOURISTS

- ♦ People who pass through, stay temporarily, or have recently arrived in a community may not
 - Hear warnings,
 - Know where to take shelter, or
 - Have resources immediately available to them.
- ♦ Communities must plan to reduce the vulnerability of this population, particularly in communities with large tourism industries



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007

ISOLATED GROUPS

- ◆ Families living in remote and/or rural areas
- ◆ Often face great difficulty receiving information about relief assistance or
- ◆ Acquiring the actual assistance and supplies
- ◆ Isolated households
- ◆ Farms
- ◆ Ranches



•Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007

ELDERLY: MOBILITY

- ◆ Disability
- ◆ Strength
- ◆ Prosthesis
- ◆ Crutch or cane
- ◆ Walker
- ◆ Cart
- ◆ Bedridden



ELDERLY: ADAPTABILITY

- ◆ Physical
- ◆ Mental
- ◆ Emotional
- ◆ Social



ELDERLY: FRAGILITY

- ◆ Emotional
 - Confusion
 - Disassociation
 - Fear/Panic
- ◆ Physical
 - Fitness/endurance
 - Bone structure
- ◆ Physiological
 - Cardiovascular
 - Endocrine
 - Renal



ELDERLY: THERAPEUTICS

- ◆ Multi system disease
 - Cardiovascular (CAD), Failure, A Fib
 - Endocrine (Diabetes)
 - Neurological (stroke), senile dementia
 - Renal Failure
- ◆ Multiple medications
- ◆ Medication interactions
- ◆ Absorption/excretion
 - GI
 - Hepatic
 - Renal



SINGLE PARENTS




- ◆ Single parents tend to have lower incomes and greater constraints placed upon their time
- ◆ These constraints often restrict the family's access to many community recovery activities and resources

•Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007

CHILDREN


- ♦ Society tends to be adult-oriented.
- ♦ Children completely dependent on adults;
 - Safety
 - Security
 - Feeding
 - Care &
 - Education
- ♦ Many relief and recovery systems;
 - Assume children will be cared for by parents
 - Neglect to directly consider their needs



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007

CHILDREN


- ♦ The care system for many children breaks down during disasters
- ♦ They are left to fend for themselves
- ♦ System that does not account for their needs



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007

HOMELESS AND STREET CHILDREN


- ♦ The most rapidly growing homeless group is families
- ♦ Little is known about what happens to them after disasters
- ♦ Familiar places are often ruined or permanently altered, further displacing the homeless
 - Doorways
 - Traditional shelters



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007



LESBIAN AND GAY HOUSEHOLDS

- ♦ Little is known about homosexual families after disasters
- ♦ Speculate that the hostility they experience every day may be exacerbated



*Coppola, Damon P., "Introduction to International Disaster Management," Butterworth-Heinemann, New York, 2007


SPECIAL NEEDS CHALLENGES

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MEDICALLY DEPENDENT: PHYSICAL

- ♦ Some people rely on certain types of medical machinery for survival
 - Life support
 - Oxygen
- ♦ Unable to participate in many recovery programs or
- ♦ Unable to access relief
- ♦ At increased risk





DISABLED

- ♦ Often marginalized in relief efforts
- ♦ Inadequate systems of relief distribution
- ♦ Incomplete systems of support
- ♦ No accommodation for special needs
 - Surgery & Rehabilitation
 - Provisions for Blind, Deaf & Dumb
 - Shelters may not be built with ramps,
 - Limiting access of wheelchair_bound victims
 - Toilets




PSYCHIATRY

- ♦ Medication side effects
 - Heat sensitivity
 - Seizure, fainting
- ♦ Acute
 - Acute stress disorder, Insomnia
- ♦ Panic
- ♦ Delayed
 - PTSD
- ♦ Chronic
 - Psychosis & Neurosis


MEDICALLY DEPENDENT: PSYCHOLOGICAL

- ♦ The mentally ill may experience increased fear and confusion due to;
 - Increased stress or
 - Inability to access medication
 - Inability to access treatment
- ♦ Altered mental state
 - May be helpless
 - May be unable to access recovery assistance



PSYCHOLOGICAL INJURY TREATMENT


- ♦ Expect large numbers of casualties (10%)
- ♦ Treatment principles
 - Proximity
 - Immediacy
 - Expectancy



SOLDIERS RESTING ON
OMAHA BEACH


PSYCHOLOGICAL INJURY TREATMENT

- ♦ Stress of dealing with casualties
 - Fatigue
 - Overworked
 - Understaffed
 - Sleep deprivation



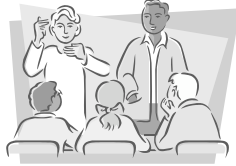
NEUROLOGY

- ♦ Acute
 - Traumatic
 - Metabolic or nutritional
 - Toxic
- ♦ Chronic
 - Seizure Disorder
 - Senile
 - MS
 - Alzheimers
- ♦ Iatrogenic
 - Guillieme Barres
- ♦ Psychomotor Retardation
 - Mild
 - Moderate
 - Severe
- ♦ Trisomy 21
- ♦ Dyslexia
- ♦ Autism



HEARING IMPAIRED

- ♦ Visual Support
- ♦ Visual Alerting systems
- ♦ Visual instruction displays
 - Fixed
 - Dynamic
- ♦ Hearing aids
 - Availability
 - Repair
 - Supplies (batteries)



SPEECH IMPAIRED

- ♦ Signing translators
 - Dialects
- ♦ Writing materials
- ♦ Access to support
- ♦ Identifying urgent needs
- ♦ Asking questions



VISUALLY IMPAIRED

- ♦ Safe Environment
 - Tactile Signage
- ♦ Access to necessary support services
 - Water
 - Food
 - Housing
 - Bedding
 - Sanitary Facilities
- ♦ Dogs
 - Availability
 - Support



IMMUNOSUPPRESSION

- ♦ HIV
- ♦ Chronic Disease
- ♦ Radiation
- ♦ Chemical
- ♦ Therapeutic
 - Neoplasia
 - Autoimmune disease
- ♦ Pregnancy



IMMUNOSUPPRESSION: INFECTION CONTROL

- ♦ Contact
- ♦ Airborne
- ♦ Water
- ♦ Latrine
- ♦ Footwear
- ♦ Sleeping quarters
- ♦ Vectors
- ♦ Isolation
- ♦ Quarantine



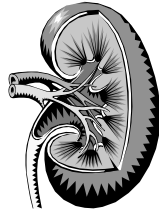
MEDICAL: CARDIOVASCULAR

- ♦ Hypertension
 - Medication
 - Diet
- ♦ Coronary Vascular Disease
 - Angina
 - Acute MI
- ♦ Failure
- ♦ Pacemaker
- ♦ Transplant



MEDICAL

- ♦ Renal
 - Dialysis
 - ATN
 - Chronic progressive
 - New
 - Screening



MEDICAL

- ♦ Endocrine
 - Diabetes
 - Type I
 - Type II
 - Hypothyroid
- ♦ Allergy
 - Asthma
 - Medication
 - Food



ASTHMA & ALLERGIES

- ♦ Asthma and allergies strike 1 out of 4 Americans
- ♦ 20 million Americans have asthma
- ♦ Nine million U.S. children under 18 have asthma.
- ♦ Four million children had an asthma attack within the year
- ♦ 70% of people with asthma also suffer from allergies.



AAAAI

PEDIATRICS

- ♦ Newborne
 - Protocols
- ♦ Acute medical or surgical problems
- ♦ Vulnerabilities
- ♦ Immunizations
- ♦ Chronic Diseases
- ♦ Medications & dosages



SURGERY/TRAUMA

- ♦ Urgent Pre-op
- ♦ Post-op
- ♦ Acute Trauma
 - First aid
 - Transportation
 - Availability of surgical sites
 - Wound dressing
- ♦ Medication
- ♦ Follow Up





TETANUS & GANGRENE

- ♦ Identification of injury
- ♦ Availability of skilled care
- ♦ Debridement & dressing
- ♦ Medication
- ♦ Follow up
- ♦ Antitoxin
- ♦ Immunization





SPECIAL SURGERY

- ◆ OB/GYN
 - Pregnancy
 - Delivery
- ◆ Ophthalmology
- ◆ Dental

POISONING


- ◆ Identification
- ◆ Diagnosis
- ◆ Public health intervention
- ◆ Acute & emergency response
- ◆ Therapeutics
- ◆ Consultation & support
- ◆ Follow up


SNAKEBITE & ENVENOMATION

- ◆ Snakes
- ◆ Spiders


EASTERN
DIAMONDBACK
RATTLESNAKE



BROWN RECLUSE
SPIDER




Encarta Encyclopedia, Larry Miller/Photo Researchers, Inc.




HYMENOPTERA


- ◆ Yellow jacket
- ◆ Hornet
- ◆ Wasp
- ◆ Honey bee
- ◆ Fire ant




THERMAL STRESS



MALNUTRITION





COTE D'IVOIRE, OCTOBER 2000



SIBERASSO, ERYTHREA, SEPTEMBER 2000

- ◆ Assess for vitamin/mineral supplementation
- ◆ Establish minimum diet
 - 2100 Kcal/day
 - 20% fats or oils
 - 46gm protein

REFUGEE SITUATIONS

Vulnerable Groups



CAMBODIA, 2000



IRC WOMEN'S COMMISSION
SIERRA LEONE
2001



- ♦ Women & female-headed households
- ♦ Lactating or pregnant female
- ♦ Children
- ♦ The elderly
- ♦ The disabled
- ♦ Ethnic, political or religious minorities
- ♦ Urban refugees in a rural setting





TURKEY, 1999



AFGHANS
PAKISTAN, 2002


SPECIAL NEEDS TOOLS

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TOOLS

- ♦ Horizontal Community Planning
 - Prevention Model integrated with Recovery Model
 - Across the ESFs
- ♦ Guidelines
 - Integrated across ESFs
- ♦ Standards
 - Modified
 - Timing
 - Training
 - Outcome
 - Care



PREVENTION-BASED MANAGEMENT

- ♦ Focus on vulnerability and risk
- ♦ Exposure to changing conditions
- ♦ Changing, shared or regional, variations
- ♦ Multiple authorities, interests, actors
- ♦ Situation-specific functions
- ♦ Shifting, fluid, and tangential relationships
- ♦ Moderate and long time frames




RECOVERY-BASED MANAGEMENT

- ♦ Primary focus on disaster events
- ♦ Basic responsibility to respond
- ♦ Fixed, location-specific conditions
- ♦ Responsibility in single agency
- ♦ Command and control, direct operations
- ♦ Established hierarchical relationships
 - Focused on hardware and equipment
- ♦ Specialized expertise
- ♦ Urgent, immediate, and short time frames




TOOLS

- ♦ Operational model
 - Doctrine
 - Roles
 - Numbers
 - Training
 - Logistics
 - Time phased
 - Flow
 - Communications infrastructure
 - Risk communications




TOOLS

- ◆ Ethics
 - Substantive elements
 - Procedural elements
 - Values
- ◆ Principles
- ◆ Professional codes
- ◆ Defined duty requirements
 - Compensation & benefits
- ◆ Mandate & sanction



ETHICS: DUTY TO CARE

- ◆ Serious HCP risk of morbidity and mortality
 - 30% of reported SARS cases were among HCPs (WHO)
 - Some died
- ◆ Issue of duty to care during communicable disease outbreaks
 - Professional codes of ethics are silent
 - No guidance on what is expected of HCPs
 - How they ought to approach their duty to care in the face of risk




Ruderman et al. BMC Medical Ethics 2006, 7:5doi:10.1186/1472-6939-7-5

PHYSICIAN OBLIGATION IN DISASTER PREPAREDNESS AND RESPONSE

A.M.A., JUNE 2004


- ◆ Epidemics, terrorist attacks, and other disasters require extensive involvement of physicians
- ◆ Because of their commitment to care for the sick and injured, individual physicians have an obligation to provide urgent medical care during disasters



PHYSICIAN OBLIGATION IN DISASTER PREPAREDNESS AND RESPONSE


A.M.A., JUNE 2004

- ◆ This ethical obligation holds even in the face of greater than usual risks to their own safety, health or life
- ◆ Balance immediate benefits to individual patients with ability to care for patients in the future



DISASTER PLANNING


- ◆ Incorporation of ethics into disaster planning
- ◆ Science alone cannot tell us how to prepare for a public health crisis
- ◆ Deliberate & corporate
- ◆ Not spontaneous
- ◆ Ethical framework includes
 - Substantive elements
 - Procedural elements



Thompson et al. BMC Medical Ethics 2006 7:12 doi:10.1186/1472-6939-7-12

ETHICAL PROCESSES


- ◆ Accountability
- ◆ Inclusiveness
- ◆ Openness & transparency
- ◆ Reasonableness
- ◆ Responsiveness



Thompson et al. BMC Medical Ethics 2006 7:12 doi:10.1186/1472-6939-7-12


ETHICAL VALUES

- ♦ Duty to provide care
- ♦ Equity
- ♦ Individual liberty
- ♦ Privacy
- ♦ Proportionality
- ♦ Protection of the Public
- ♦ Reciprocity
- ♦ Solidarity
- ♦ Stewardship
- ♦ Trust



Thompson et al. BMC Medical Ethics 2006 7:12 doi:10.1186/1472-6939-7-12

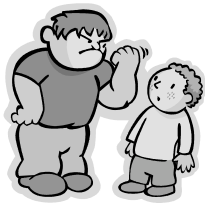
MANDATE




- ♦ Optimal balance between outcomes survival & liberty
- ♦ Clinical paradigm – focus on individual patient
- ♦ Rescue paradigm, save lives and minimize aggregate morbidity – focus on community welfare

MANDATE

- ♦ Infectious disease
 - Isolation
 - Quarantine
 - Prophylaxis
- ♦ Mass casualties
 - Decontamination, evacuation & treatment



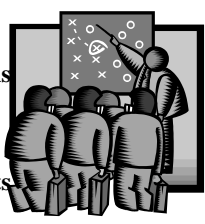
SPECIAL NEEDS MANAGEMENT



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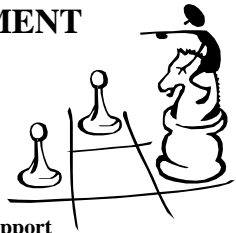
MANAGEMENT

- ♦ Time phasing critical
- ♦ Decision points
- ♦ Defined options
 - Pre-approved actions
- ♦ Prepared
 - Sites
 - Operational elements
 - Equipment
 - Supply flow & alternative sourcing
 - Manning




MANAGEMENT

- ♦ Evacuation
 - Who
 - How
 - When
 - Enroute medical support
 - Prepared receiving communities
 - Urgent needs
 - Focused evacuation
 - Focused sites




MANAGEMENT

- ♦ **Administrative preparation**
 - Target populations
 - Cadre
 - HICS style crosswalk
 - Organizational design
 - Job action sheets
 - Forms
 - Training
 - Equipment
- Prepared personnel pool




MANAGEMENT

- ♦ **Sheltering**
 - Local
 - Distant
- ♦ **Residual population**
 - Daily needs
 - Special needs




MANAGEMENT

- ♦ **PODs**
- ♦ **Supply**
 - Marshalling
 - Warehousing
 - Delivery
 - Security




PANIC AVOIDANCE AS A GOAL



- ♦ Many communication plans list the avoidance of panic as a major goal
- ♦ Panic describes an intense contagious fear causing individuals to think only of themselves

*Covello, Vincent T., "Effective Media Communication during Public Health Emergencies, WHO, Geneva, 2007"


PANIC AVOIDANCE AS A GOAL



- ♦ **Risk factors for panic include:**
 - The belief that there is only a small chance of escape
 - The perception that there are no accessible escape routes
 - Perceiving oneself at high risk of being seriously injured or killed
 - Available but limited resources for assistance

*Covello, Vincent T., "Effective Media Communication during Public Health Emergencies, WHO, Geneva, 2007"


PANIC AVOIDANCE AS A GOAL



- ♦ **Risk factors for panic include:**
 - Perceptions of a "first come, first served" system
 - A perceived lack of effective management of the event
 - A perceived lack of control
 - Crowd ("mob") psychology and dynamics
 - Authorities that have lost their credibility

*Covello, Vincent T., "Effective Media Communication during Public Health Emergencies, WHO, Geneva, 2007"


PANIC AVOIDANCE AS A GOAL



- ◆ Studies indicate that panic is rare
- ◆ Most people respond cooperatively and adaptively to natural and man-made disasters
- ◆ Panic avoidance should never be used as a rationale for false reassurance or for lack of transparency on the part of authorities

*Covello, Vincent T., "Effective Media Communication during Public Health Emergencies, WHO, Geneva, 2007"

OUTCOME





DESMOND
TUTU

- ◆ Shape the battlefield
- ◆ Back to the future
- ◆ “The good news to a hungry person is bread.” – Desmond Tutu

SUMMARY

- ◆ Introduction to special needs
- ◆ Culture & religion
- ◆ Challenges
- ◆ Tools GEN DWIGHT D. EISENHOWER
- ◆ Management
- ◆ “Plans are Nothing, Planning is Everything.”
- Eisenhower, Patton

GEN GEORGE PATTON

QUESTIONS?



YELLOW SHAFTED FLICKER