



APA Project Wingman: Peer & Professional Support



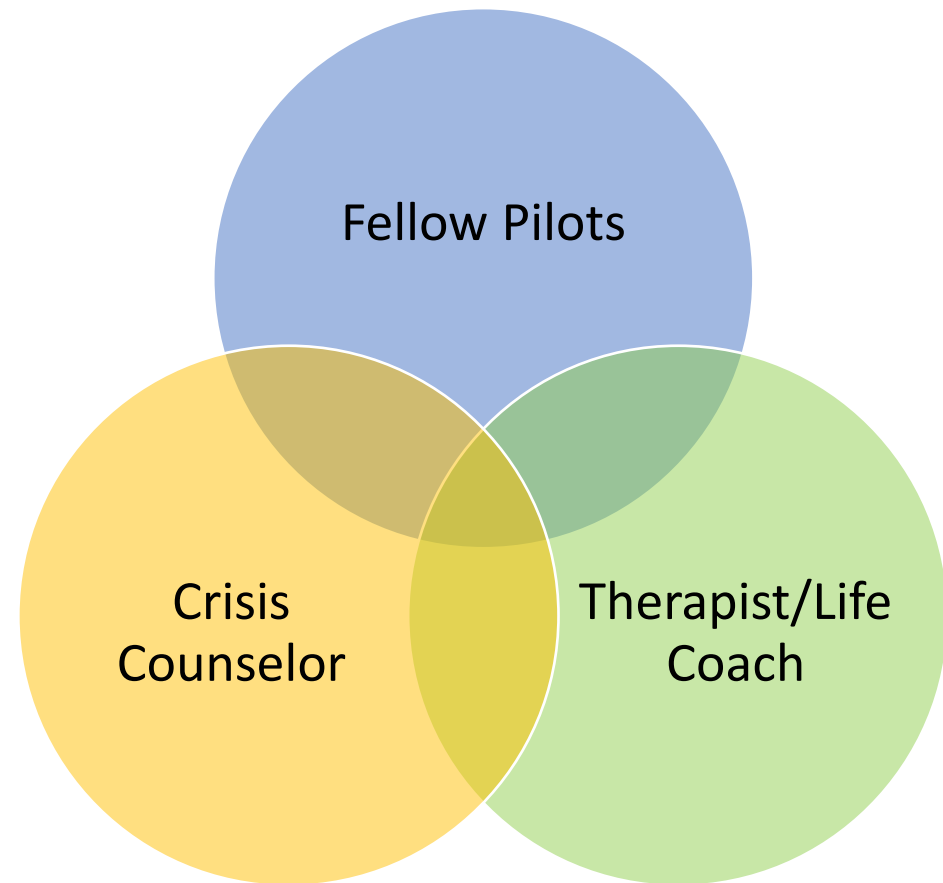
First Officer Peter Gillespie
Deputy Chairman

PROJECT WINGMAN



What is Peer Support for Pilots?

- Peer support for airline pilots is a combination of three domains.



Project Wingman Structure



24/7 Crisis Support via a hotline phone number



50 hotline volunteers and 5 committee leaders



2 volunteers on duty each day



Average 4 calls per day



Each inbound = 4 outbound calls (avg)

Project Wingman Support Overview

- That First Contact
- Triage and Refer
- Support and Follow Up



Project Wingman Support Overview



GREAT COMPANY
SUPPORT



JOINT MARKETING
CAMPAIGNS



VOLUNTEER
DEDICATION



EXTERNAL
EXPERTISE



INTERNAL
RESOURCES

The Journey Ahead: Wingman is a Project

Continued de-stigmatization of pilot mental health

Financial Commitment

Volunteer professional development and certification

Continuous improvement of protocols and procedures



ALLIED PILOTS ASSOCIATION

Pilot Mental Fitness: Advancing Safety & Human Performance with peer-support systems



Captain Rondeau Flynn
Aeromedical Chairman

Aeromedical Committee 200+ Professional Pilots Aeromedical Department, Medical Professionals (RN's, MD's, PhD. Psy D, LICSW)

- Aeromedical National & CAPA- (Research to Operations to Research)
- Project Wingman-Severe Crisis/Severe Stress
- HIMS-Addiction/Recovery
- CIRP-PTSD Prevention
- POH-Occupational Health/Technical
- DPASC-Long-Term Disability
- SGRP-Sudden Grief/Bereavement
- Aeromedical Medical Advisors-FAA Certification



Promoting Aviation Safety Allied Pilots Association



United States Department of Transportation



Federal Aviation
Administration



Providing the Safest, Most Efficient
Aerospace System in the World.

FAA Medical Recertification

Grand Rounds and Other Items

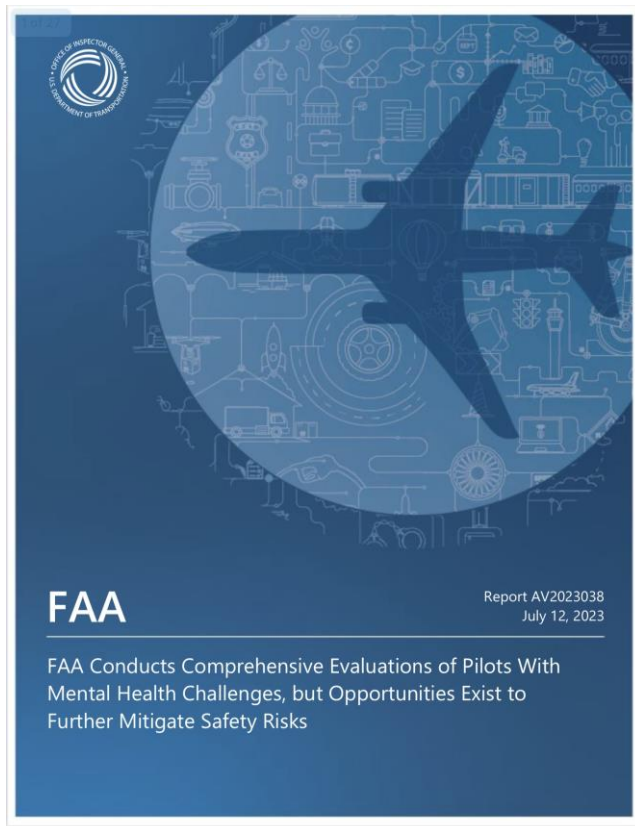
By Susan Northrup, MD, MPH

FAA Federal Air Surgeon

“I have three major lines of effort for the next year. They are **Education, Early Intervention, and Evolution of Standards**. You will see them resonating throughout my messaging in the coming year.

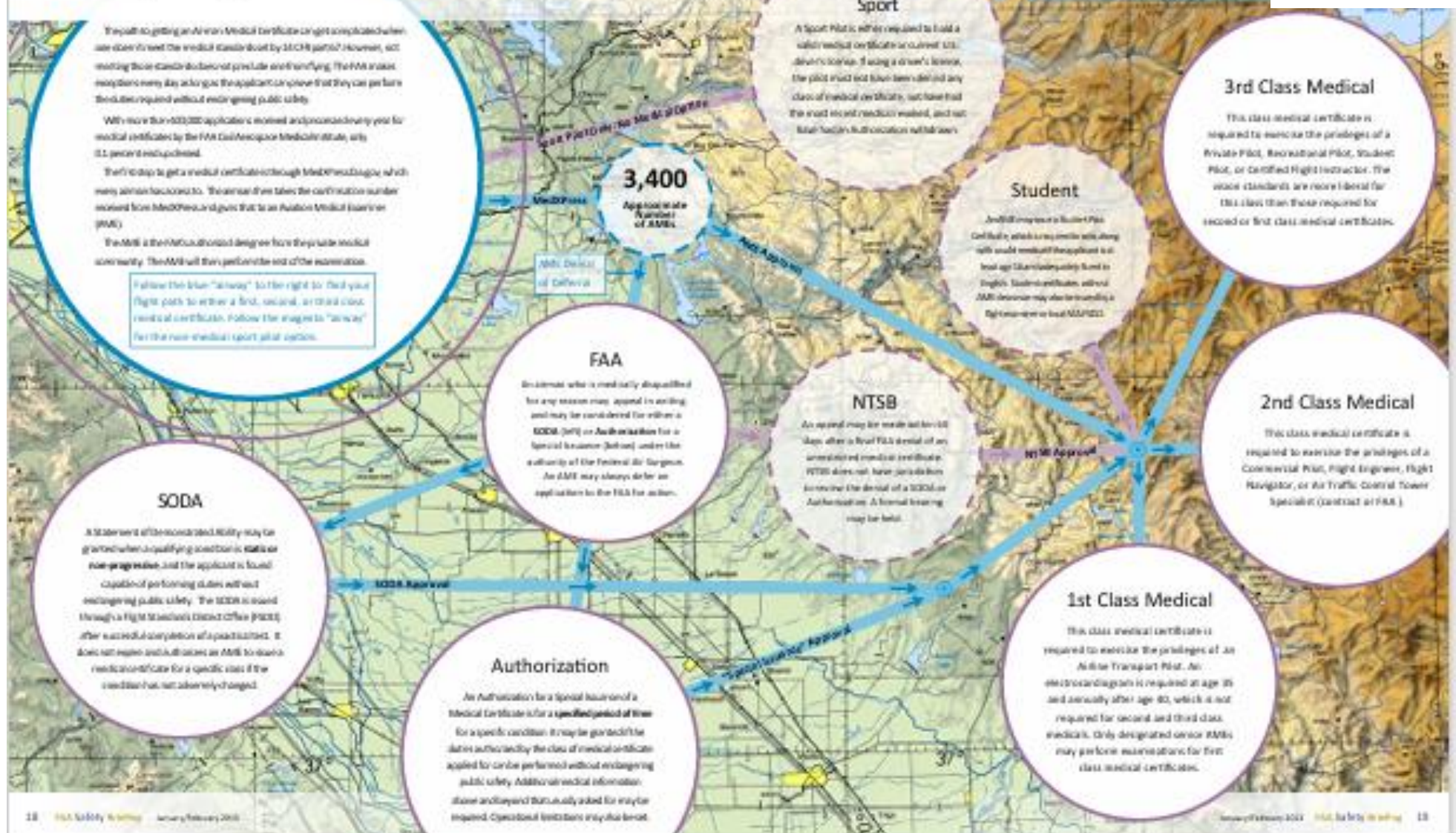
We are actively taking steps to move to the medical certification process of the future going to **science-based approaches** using Safety Management System techniques.”

APA Aeromedical Task Force Designing Pathways for reducing stigma and enhancing pilot/peer support



2023-2024 APA-Aeromedical Task Force (ATF)
Pilot Mental Health: Designing pathways for reducing stigma and enhancing pilot peer/professional support. A focus group approach.
First Officer Rondeau Flynn
Chairman-APA Aeromedical Committee





Mental Health in America

(Mental illness, Mental Health, Pilot Mental Fitness)



How common are mental illnesses?

Mental illnesses are among the most common health conditions in the United States.

1 in 5

- More than 1 in 5 US adults live with a mental illness.
- Over 1 in 5 youth (ages 13-18) either currently or at some point during their life, have had a seriously debilitating mental illness.⁵
- About 1 in 25 U.S. adults lives with a serious mental illness, such as schizophrenia, bipolar disorder, or major depression.⁶

Statistics related to mental health disorders

The following are the latest statistics available from the National Institute of Mental Health Disorders, part of the National Institutes of Health:

- Mental health disorders account for several of the top causes of disability in established market economies, such as the U.S., worldwide, and include: major depression (also called clinical depression), manic depression (also called bipolar disorder), schizophrenia, and obsessive-compulsive disorder.
- An estimated 26% of Americans ages 18 and older -- about 1 in 4 adults -- suffers from a diagnosable mental disorder in a given year.
- Many people suffer from more than one mental disorder at a given time. In particular, depressive illnesses tend to co-occur with substance use and anxiety disorders.
- Approximately 9.5% of American adults ages 18 and over, will suffer from a depressive illness (major depression, bipolar disorder, or dysthymia) each year.

Emphasizing pilot health and safety can enhance profitability within the aviation industry.....

Health in the Skies: A Narrative Review of the Issues Faced by Commercial Airline Pilots

Monitoring Editor: Alexander Muacevic and John R Adler

[Piercarlo Minoretti](#)¹ and [Enzo Emanuele](#)^{✉2}

Abstract

[Go to: ►](#)

While the health of airline pilots is crucial to ensuring the safe travel of millions of people worldwide, they remain vulnerable to a variety of health challenges due to the nature of their job.

Emphasizing pilot health and safety can enhance profitability within the aviation industry by minimizing expenses related to absenteeism, employee turnover, and accidents. Nevertheless, the examined evidence reveals that pilots continue to face numerous health-related obstacles. Consequently, it is essential for airline pilots to focus on their well-being and proactively address these potential concerns. Airlines can proactively enhance the health and safety of their pilots by

APA-Pilot Occupational Health

Research methodology and Pilot support



Defining Elements of *Total Worker Health*

Defining Element 1: Demonstrate leadership
commitment to worker safety and health at all levels of
the organization

Fundamentals of *Total Worker Health*® Approaches

Essential Elements for Advancing
Worker Safety, Health, and Well-Being



DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health



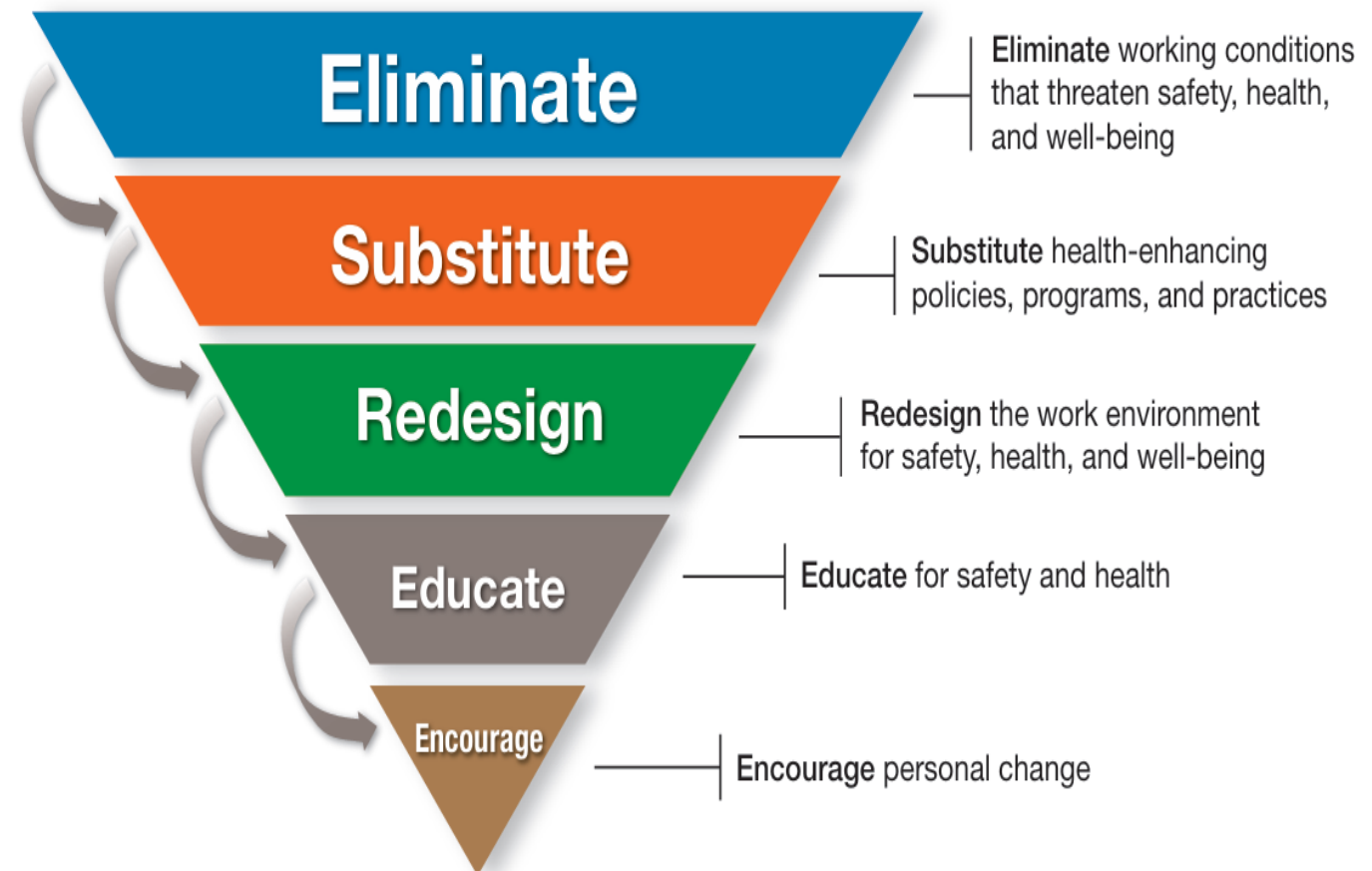
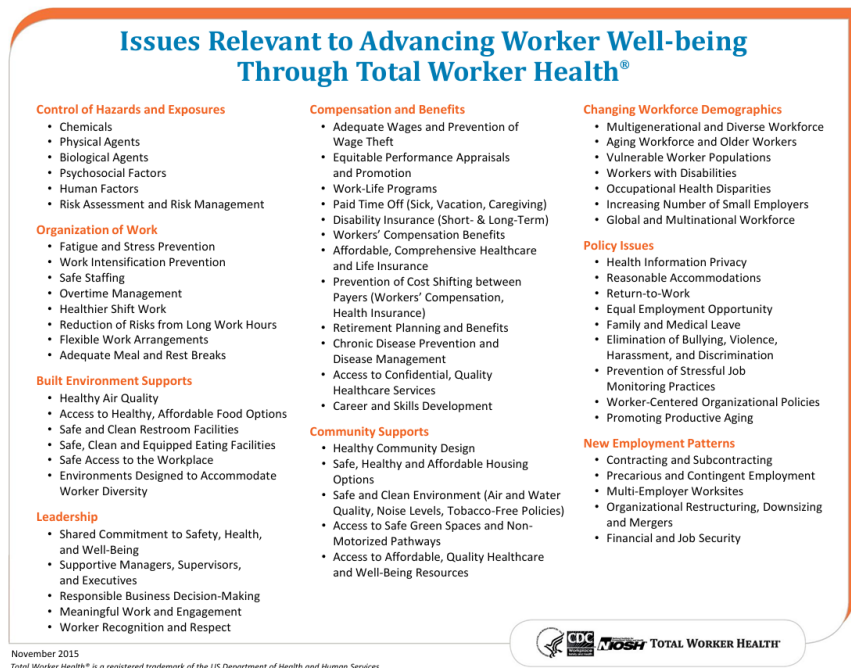


Figure 2. Hierarchy of Controls Applied to NIOSH Total Worker Health®

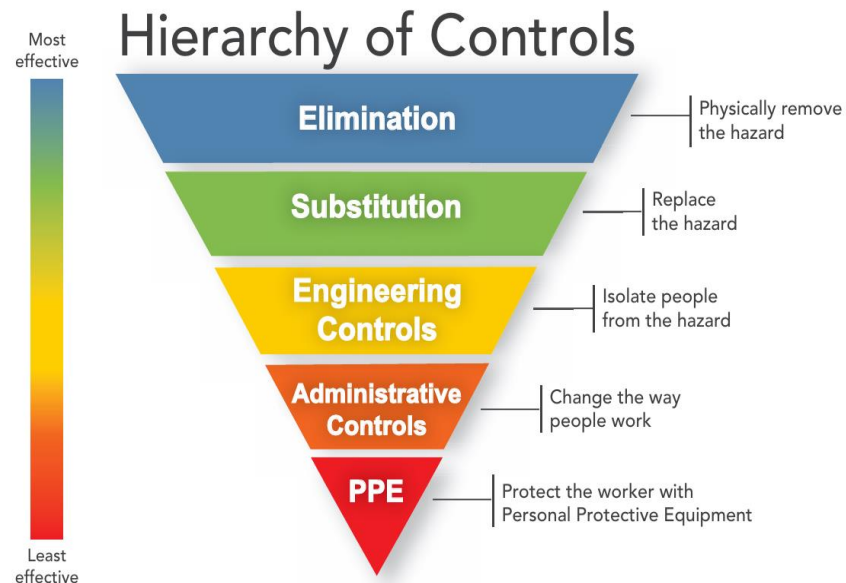


Figure 1. Hierarchy of Controls [NIOSH 2015]



Bow-Tie Risk Analysis & FAA Data Outcomes for Health and Human Performance

Safety Risk Management

Bowtie Risk Modeling

This report is structured using an SRM paradigm. In particular, we implement bowtie modeling to depict the interaction between elements associated with risk analysis.⁵ Figure 1 shows a conceptual bowtie model. Central to the model is the *hazard*—a condition or activity in or around the system that can cause damage. A *top event* is when control over the hazard is lost. *Threats* advance towards top events unless blocked by preventive *barriers*. Similarly, top events progress towards undesired *consequences* unless prevented by recovery barriers.

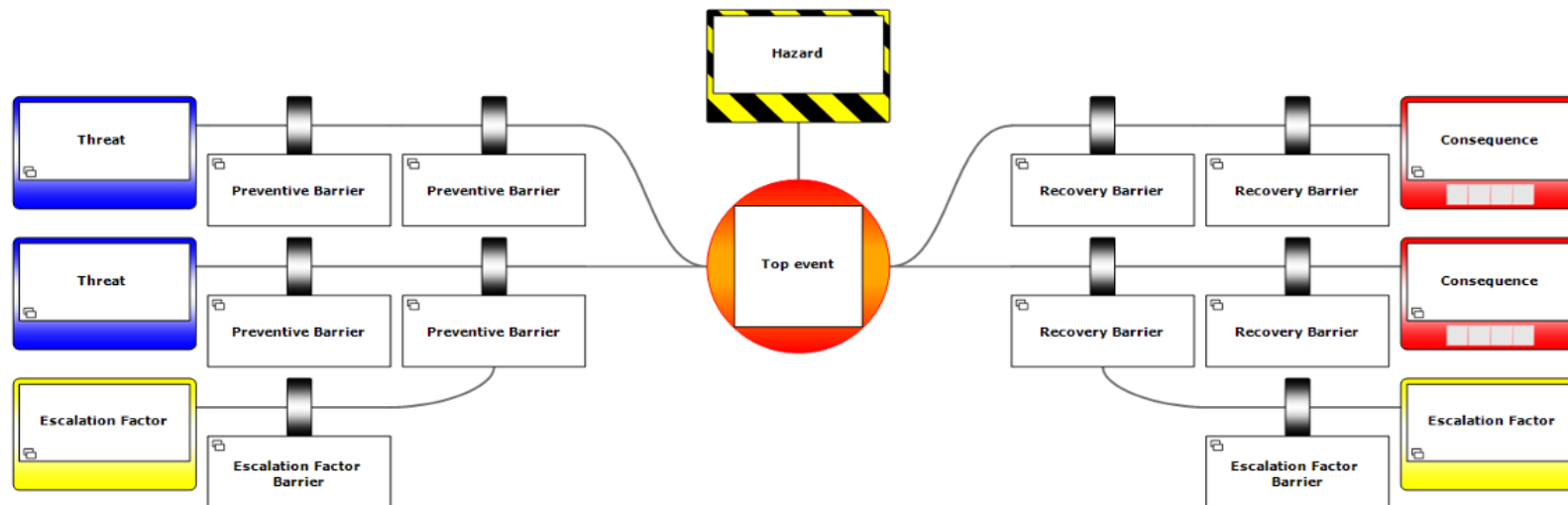
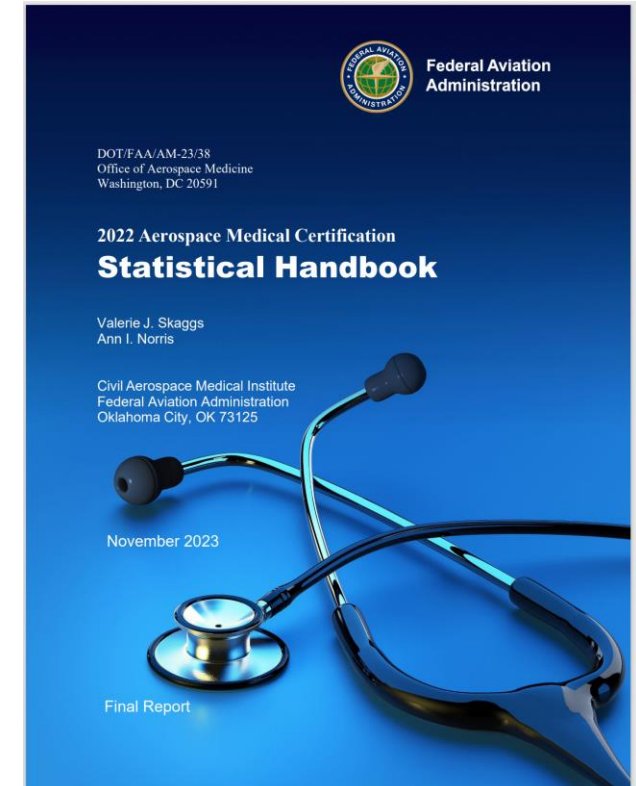


Figure 1. Bowtie Model



High Performers choose “Project Wingman”



About us ▾

All journals

All articles

Submit your research

An Evidence-Informed Framework to Promote Mental Wellbeing in Elite Sport

FOR THE SHOE

verizon



NEWS VIDEO AUDIO PHOTOS TEAM SCHEDULE KICKING THE STIGMA ... TICKETS APP WATCH PRO SHOP LIVE NFL GAMES

Community Home Kicking The Stigma Gameday Programs Grants & Awards Events & Programs Donations & Appearances Football Development

Kicking The Stigma



KICKING
THE
STIGMA

In 2020, the Indianapolis Colts and the Jim Irsay family launched Kicking The Stigma, an initiative to raise awareness about mental health and remove the stigma often associated with mental health disorders.

Kicking The Stigma's focus is two-fold: Raising awareness about the prevalence of mental health disorders in our communities and raising and distributing funds to nonprofits and other organizations to expand treatment and research in Indiana and beyond.

DONATE NOW



RESOURCES



IMPACT REPORT



DONATE

Events Awards **Connect** Network Foundation Press Join Us About Us



Occupational Exposure and Pilot Health

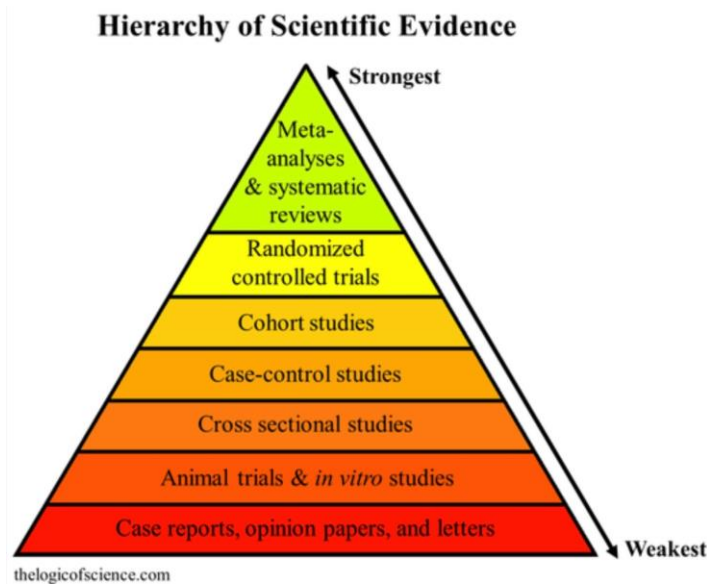
JAMA Dermatology

Original Investigation

The Risk of Melanoma in Airline Pilots and Cabin Crew

A Meta-analysis

Martina Sanlorenzo, MD; Mackenzie R. Wehner, MPhil; Eleni Linos, MD, DrPH; John Kornak, PhD; Wolfgang Kainz, PhD; Christian Posch, MD; Igor Vujic, MD; Katia Johnston, BS; Deborah Gho, BS; Gabriela Monico, BS; James T. McGrath, EE; Simona Osella-Abate, PhD; Pietro Quaglino, MD; James E. Cleaver, PhD; Susana Ortiz-Urda, MD, PhD



Conclusions

The results of our meta-analysis indicate that pilots and cabin crew have increased incidence of melanoma compared with the general population. This has important implications for occupational health and protection of this population.



NIRAS Ionizing Radiation Environment Model

Christopher J. Mertens¹, Guillaume Gronoff¹, Yihua Zheng², Maksym Petrenko², Daniel Phoenix¹, Janessa Buhler², Emily Willis⁴, Insoo Jun⁵, and Joseph Minow⁴

¹NASA Langley Research Center, Hampton, VA, USA

²NASA Goddard Space Flight Center, Greenbelt, MD, USA

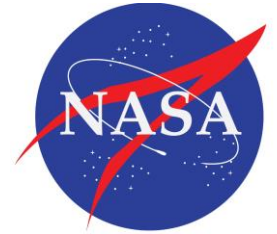
³NASA Kennedy Space Center, Merritt Island, FL, USA

⁴NASA Marshall Space Flight Center, Huntsville, AL, USA

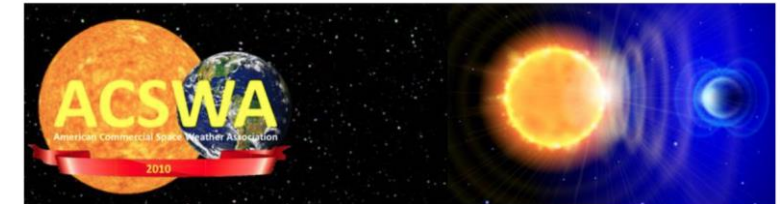
⁵Jet Propulsion Laboratory, Pasadena, CA, USA



Federal Aviation
Administration



U.S. National
Science
Foundation



Nowcast of Aerospace Ionizing Radiation System (NIRAS) Model

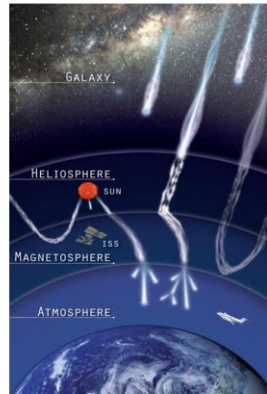
- Running in real-time on NASA computer cluster since 2011, aviation radiation results hosted publicly on Space Environment Technologies server/website
- Running in real-time at Community Coordinated Modeling Center (CCMC) since 2020

Key (Vintage) Model Features

- Physics-based HZETRN (High Charge (Z) and Energy TRANsport) code
- Real-time inclusion of solar energetic particle (SEP) radiation
- Real-time solar-magnetospheric effects on radiation (cutoff model by Kress et al. [2004, 2010])

New/Current Model Developments

- Extend from atmosphere to space environment, now including trapped protons (TRP)
- SEP heavy-ions (Z=2-92, A=4-238) added
- Single-Event Effects (SEE) radiation risk assessment quantities added
- Run-on-Request (RoR) @ CCMC



Based on CISM-Dartmouth model with TS05 magnetospheric B-field (Kress et al., 2010)

Added multiple magnetospheric B-field selection capability

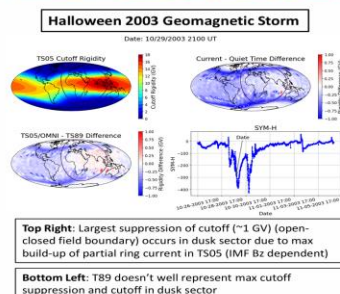
- TS05 → parameterized by solar wind quantities, interplanetary magnetic field (IMF), SYM-H/Dst, and other derivative solar wind quantities
- T89 → parameterized by the planetary K-index (Kp)

The TS05 better represents magnetospheric responses to interplanetary disturbances

- but real-time solar wind parameters available from ACE/DSCOVR 1995+

Benefits of T89 option

- NIRAS can simulate any historical solar-geomagnetic storm event
- Extend/enhance validation capabilities
- Provide initial step in forecasting cutoff via Kp-parameter forecast



SWORM

Space Weather Operations, Research and Mitigation Subcommittee

Space Weather Advisory Group (SWAG)



NATIONAL SPACE WEATHER STRATEGY AND ACTION PLAN

Product of the
SPACE WEATHER OPERATIONS, RESEARCH, and MITIGATION
WORKING GROUP
SPACE WEATHER, SECURITY, and HAZARDS SUBCOMMITTEE
COMMITTEE ON HOMELAND AND NATIONAL SECURITY
of the
NATIONAL SCIENCE & TECHNOLOGY COUNCIL

March 2019

Pre-Flight Communications

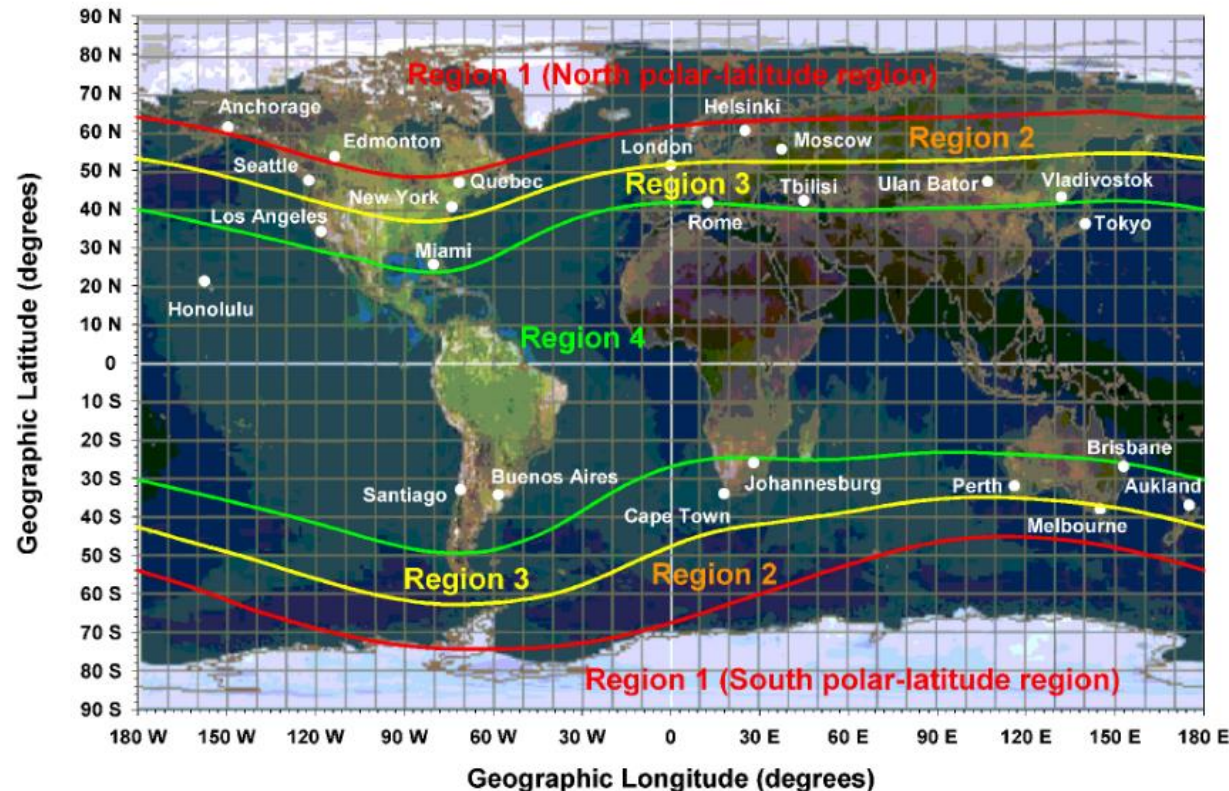
Preparing for an S3/S4 Storm

Radiobiology Research Team



Federal Aviation Administration

FAA Solar Radiation Alert System (APA-SRA Alert System)



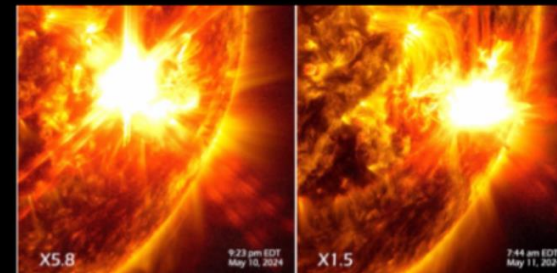
X-CLASS FLARES CONTINUE TO OCCUR



X-class Flares Continue to Occur

WHAT: Sunspot Region 3664 Remains Active

Updated
2024-May-11
9:30 a.m. EDT



NASA's Solar Dynamics Observatory (SDO) captured images of the two solar flares on May 10 and May 11, 2024. The image shows a subset of extreme ultraviolet light that highlights the extremely hot material in flares created from a mixture of SDO's AIA 193, 171 and 131 channels. Credit: NASA/SDO

NOAA Sunspot Region 3664 remains quite active and produced two more X-class flares in the past 12 hours.

This sunspot cluster has been responsible for much of the geomagnetic storming and associated events over the past few days.

Solar flares are powerful bursts of energy that can impact radio communications, power grids, and navigation signals.



National Oceanic and Atmospheric Administration
U.S. Department of Commerce

Safeguarding Society with Actionable Space Weather Information

Space Weather Prediction Center
Boulder, CO

Pilots Supporting Pilots (Level 1 & Level 2)

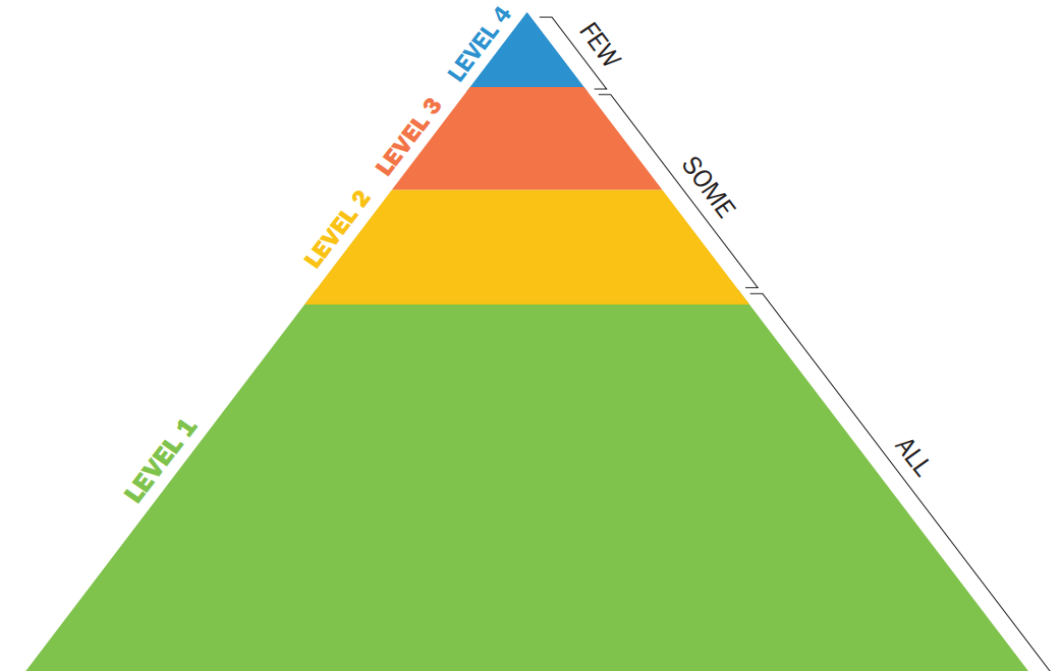


- The framework is based on a pyramid model which suggests that ALL people who experience a bereavement have some level of **NEED, such as the need for compassion and acknowledgement of the death (LEVEL 1).**
- **SOME** need additional support which is outside their natural network, such as **peer-to-peer support (LEVEL 2).**
- **SOME** require more intensive support, such as counselling (LEVEL 3)
- A **FEW** require support from a specialist therapeutic service (LEVEL 4).

Adult Bereavement Care Pyramid A national framework

Developed by
 The Irish
Hospice
Foundation


A national collaborative
project 2020



APA-Aeromedical Recommended Reading List

Precision Medicine & Human Performance

January February March April May June



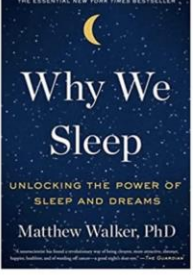
Welcome to the APA Aeromedical Committee Recommended Reading List! Each month we will be listing a recommended book based on an APA Aeromedical Committee/Subcommittee volunteer's choice, or from an APA member. Each book will highlight an Aeromedical-centric theme that has helped in the prevention, treatment, or recovery from an injury, illness, or has elevated our members' education. Most Aeromedical book recommendations can be either read or listened to via various audible apps. Feel free to send your Aeromedical-centric book recommendations to cmte-aeromed@alliedpilots.org

Disclaimer: This APA Aeromedical Committee Book Club is for general informational purposes only, and does not constitute the practice of medicine or other professional health care services, including the giving of medical advice. The use of this information and the material within this book club is at the user's own risk. The content within the book recommendations are not intended to be substitute for professional medical advice or treatment. Always consult with your medical provider when making health care decisions.

7:55 AM Wed Aug 16

alliedpilots.org

THE ESSENTIAL NEW YORK TIMES BESTSELLER




Why We Sleep

UNLOCKING THE POWER OF SLEEP AND DREAMS

Matthew Walker, PhD

"Why We Sleep" is a landmark work on sleep, one of the most important and yet most misunderstood aspects of our lives. Dr. Walker explains the science of sleep, from the brain to the body, and how it affects everything we do. This is a book that will change the way you think about sleep, and how you live your life.

January February March April May June



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7:56 AM Wed Aug 16

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The End of Alzheimer's Program


THE FIRST PROTOCOL TO Enhance Cognition and Reverse Decline AT ANY AGE

DALE E. BREDESEN, MD

Foreword by David Perlmutter, MD

With inspiring stories of recovery, Dr. Bredesen's program offers a new paradigm for treatment and prevention of Alzheimer's disease. This is a book that will change the way you think about Alzheimer's, and how you live your life.

January February March April May June



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Lifespan: Why We Age – and Why We Don't Have To

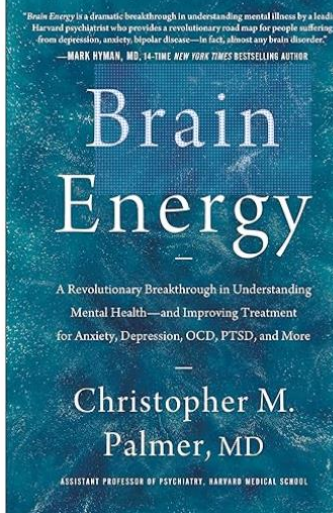
It's a seemingly undeniable truth that aging is inevitable. But what if everything we've been taught to believe about aging is wrong? What if we could choose our lifespan? In this book, Dr. David Sinclair, a leading authority on genetics and longevity, reveals a bold new theory for why we age. As he writes: "Aging is a disease, and that disease is treatable."

This eye-opening and provocative work takes us to the frontlines of research that is pushing the boundaries on our perceived scientific limitations, revealing incredible breakthroughs – many from Dr. Sinclair's own lab at Harvard Medical School – that demonstrate how we can slow down, or even reverse, aging. The key is activating newly discovered vitality genes, the descendants of an ancient genetic survival circuit that is both the cause of aging and the key to reversing it. Recent experiments in genetic reprogramming suggest that we soon may not just be able to feel younger, but actually become younger.

Disclaimer: This recommendation is for general informational purposes only and does not constitute the practice of medicine or other professional health care services. Always consult with your medical provider when making health care decisions.

"Brain Energy is a dramatic breakthrough in understanding mental illness by a leading Harvard psychiatrist who provides a revolutionary road map for people suffering from depression, anxiety, bipolar disease—in fact, almost any brain disorder."

—MARK HYMAN, MD, 14-TIME NEW YORK TIMES BESTSELLING AUTHOR



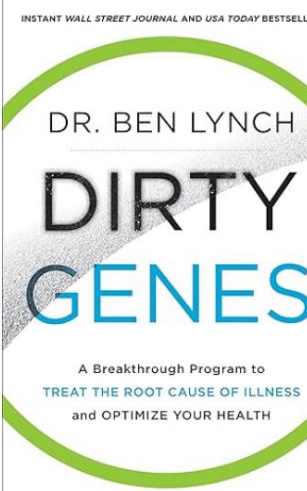
Brain Energy

A Revolutionary Breakthrough in Understanding Mental Health—Improving Treatment for Anxiety, Depression, OCD, PTSD, and More

Christopher M. Palmer, MD

ASSISTANT PROFESSOR OF PSYCHIATRY, HARVARD MEDICAL SCHOOL

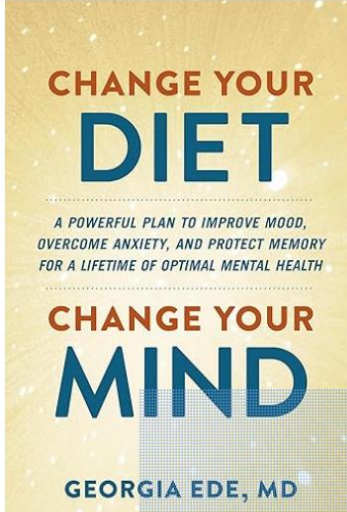
INSTANT WALL STREET JOURNAL AND USA TODAY BESTSELLER



DR. BEN LYNCH

DIRTY GENES

A Breakthrough Program to TREAT THE ROOT CAUSE OF ILLNESS and OPTIMIZE YOUR HEALTH



CHANGE YOUR DIET

A POWERFUL PLAN TO IMPROVE MOOD, OVERCOME ANXIETY, AND PROTECT MEMORY FOR A LIFETIME OF OPTIMAL MENTAL HEALTH

CHANGE YOUR MIND

GEORGIA EDE, MD

**“American 605, Cleared to land Runway
17 Center”**



Thank you from the Allied Pilots Association

