



MAUI COUNTY  

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ENERGYALLIANCE

*Working Group 3:*

# **Energy & Transportation Infrastructure**



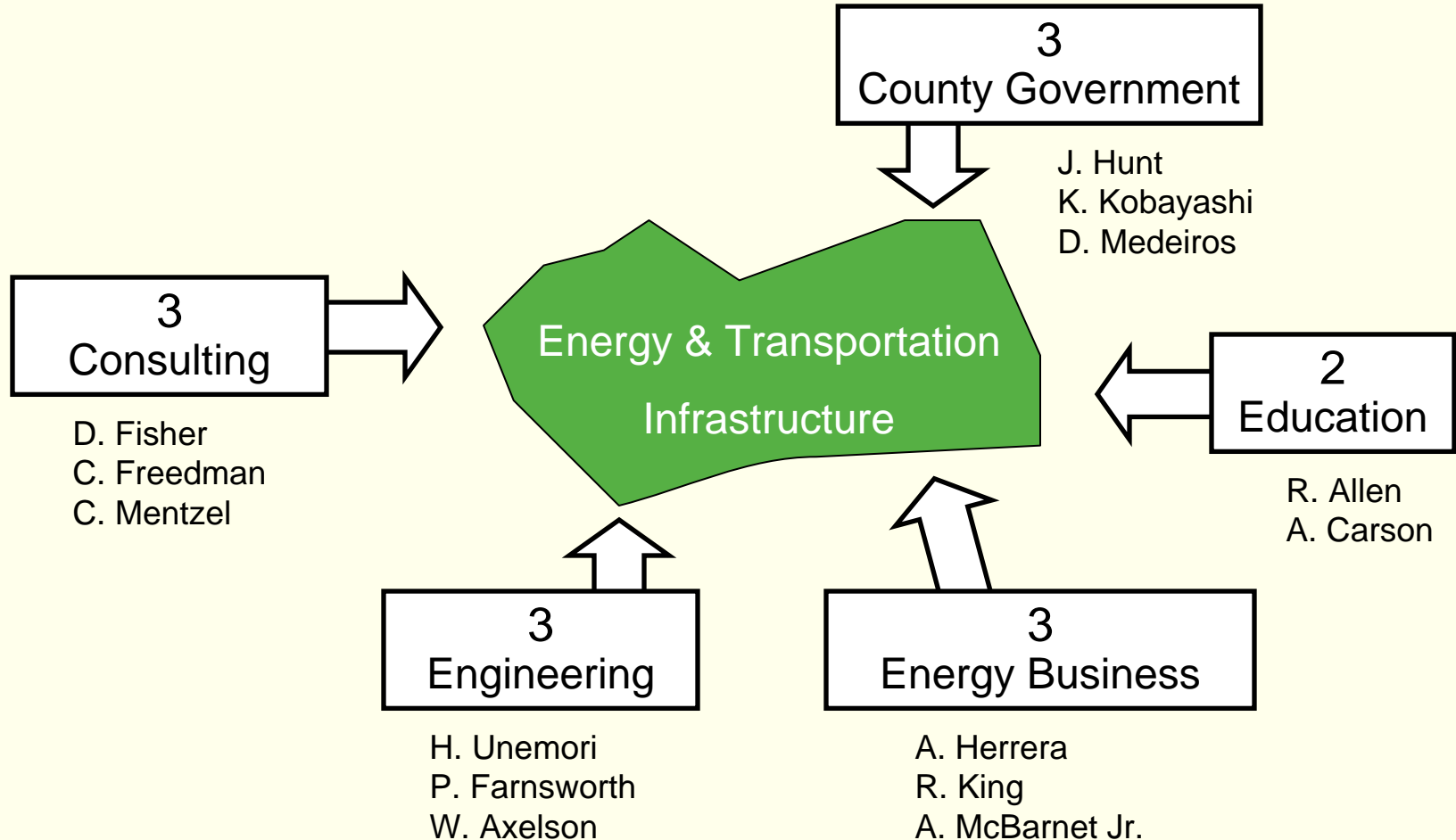


# Working Group 3 - Members

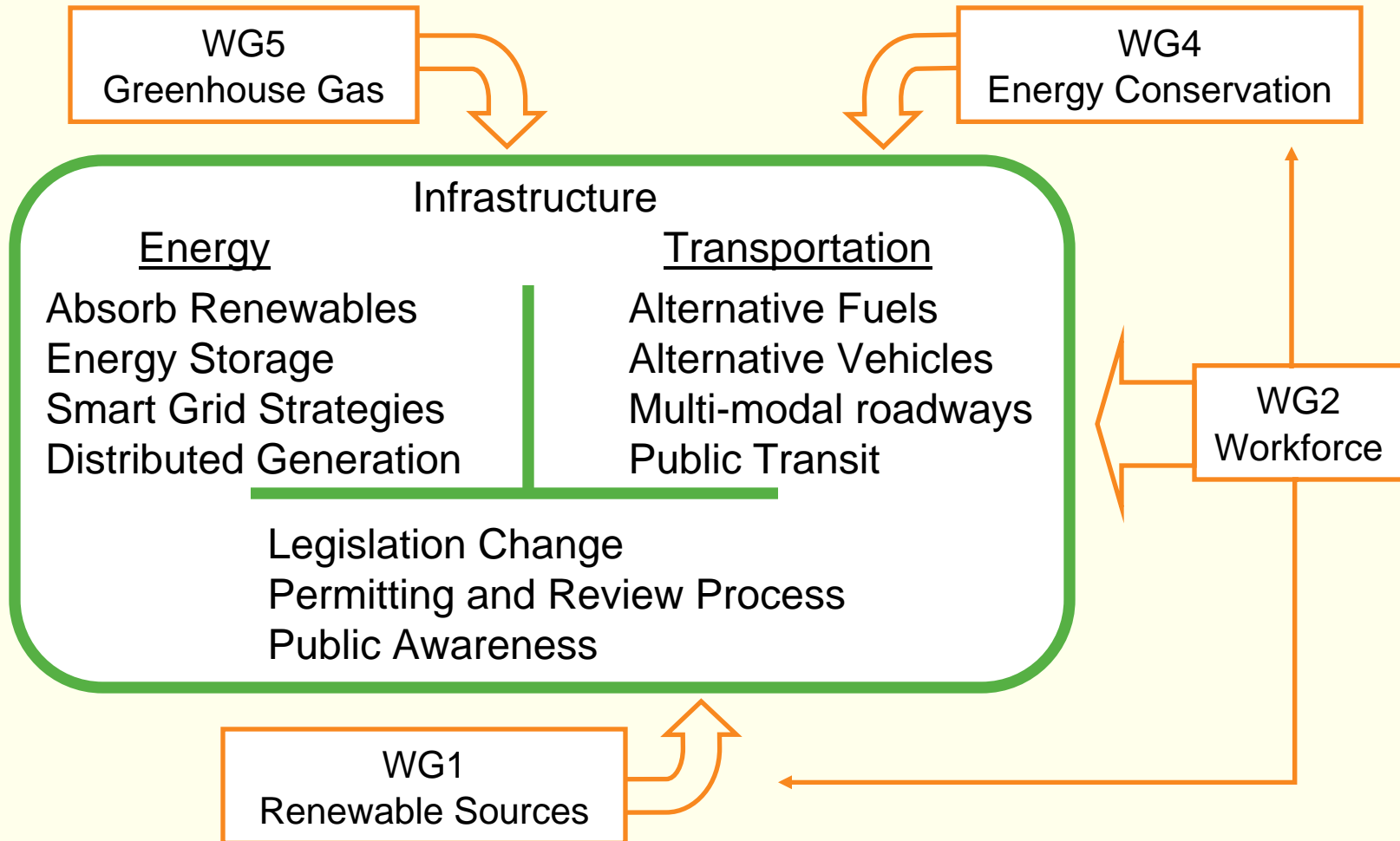
■ Wayne Axelson (Chair)	Technology Entrepreneur	TruTech Systems
■ Hilton Unemori (Vice Chair)	President	E.C.M. Inc.
(Alphabetical Listing)		
■ Richard Allen	Adjunct Professor	Maui Community College
■ Andy Carson	Construction Academy	Maui Community College
■ Pam Farnsworth	Professional Engineer	E.C.M. Inc.
■ David Fisher	Center Director	HI Small Bus. Dev. Center Network
■ Carl Freedman	Principal	Haiku Design & Analysis
■ Andy Herrera	Manager, Transmission and Distribution	Maui Electric Company (MECO)
■ Jeff Hunt	Director	CoM Department of Planning
■ Robert King	President	Pacific Biodiesel
■ Kal Kobayashi	Energy Specialist	CoM Dept. of Management
■ Alec McBarnet Jr.	President	Maui Oil Co.
■ Don Medeiros	Director	CoM Dept. of Transportation
■ Chris Mentzel	CEO	Clean Energy Maui LLC



# WG3 - Member Mix



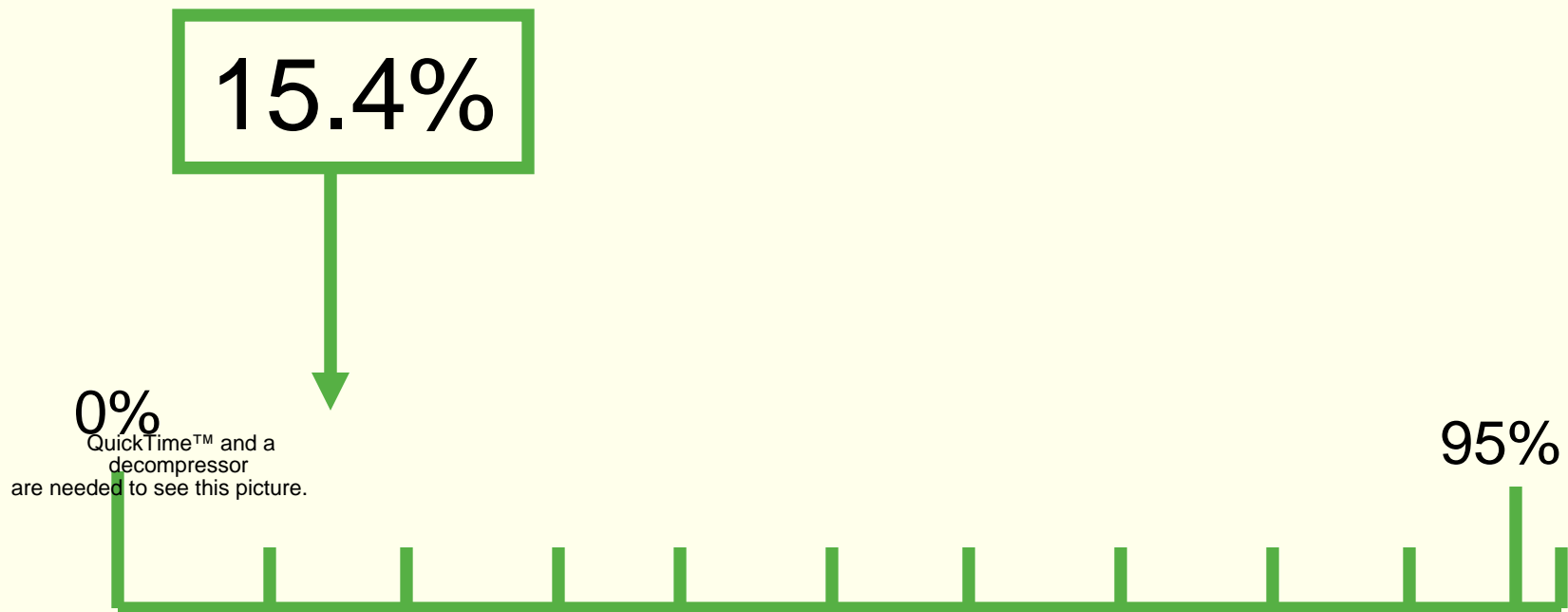
# WG3 - Scope







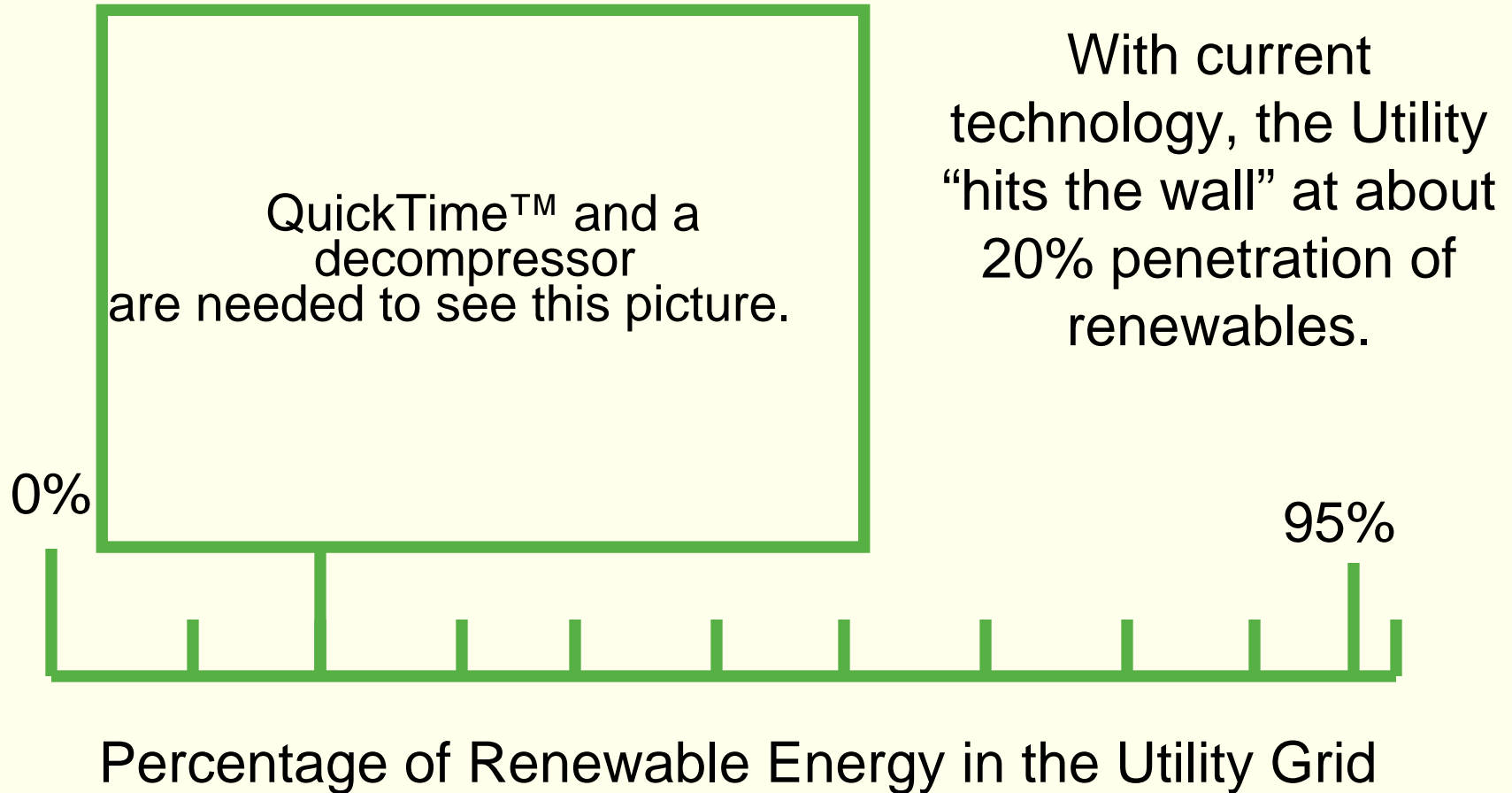
# Renewables in the Maui Grid



Percentage of Renewable Energy in the Utility Grid



# Renewables in the Grid



“I think you  
should be more  
explicit here in  
step two.”

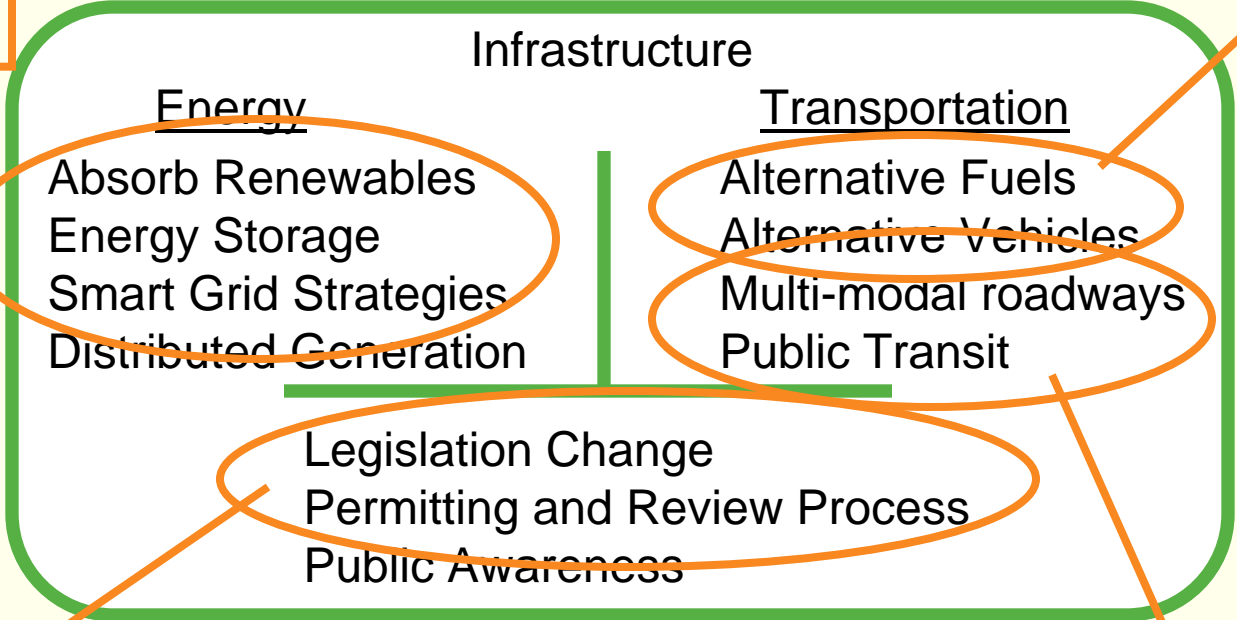
QuickTime™ and a  
decompressor  
are needed to see this picture.

**THEN A  
MIRACLE  
OCCURS...**

# WG3 - Scope

R&D Only!  
Prototypes

They exist, but  
need to scale up.



Slow, Obstructionist

Expensive!



# WG3 - Guiding Principles

- Aim towards energy self-sufficiency for each island
- Maui County government to lead by example
- Embed the recommendations into existing long-range plans
  - MECO - CESP (Clean Energy Scenario Planning)
  - Maui County General Plan
  - Maui, Molokai and Lanai Island Plans
  - Land Use Plans; Water Use and Development Plan
  - Solid Waste and Recycling Plans



# WG3 - Guiding Principles

- Develop the business of renewable energy
  - Sustainable, balanced, self-supporting
  - Broaden and strengthen the local economy
- Maui could be a model for the nation in demonstrating a sustainable life style
  - Small electrical grid - good R&D test lab
  - Fewer people to bring into agreement
  - Department of Energy - “Hawaii is a test site”



# Priority Recommendations (Immediate Action - 2010)

1. Develop an Energy Infrastructure Master Plan (to include alternative transportation)
2. Support the introduction of electric vehicles to Maui County
3. Create a master list of “Identified Entrepreneurial Opportunities” in the renewable energy sector
4. Fast-track well-designed sustainable energy projects
5. Create an Internet-based Energy Dashboard to stimulate and track community involvement



# Additional Immediate Actions (2010)

- County of Maui to lead by example (renewable installations in County buildings, fuel efficient and/or electric County vehicle fleet, employee flex-time, carpooling, telecommuting)
- Encourage local research into developing algae as a biofuel feedstock



# Near-Term Actions (2011-2012)

- Promote legislation to facilitate adoption of alternative energy technologies
- Stimulate PV installation
- Encourage financing programs for small-scale energy
- Maui Alternative Energy and Transportation Festival
- Maui Nui as test-bed for alternative energy vehicles
- Support locating a PV assembly facility in Maui Nui
- Traffic and parking initiatives
- Encourage adoption of feed-in tariff for Maui County



# Medium & Long-Term Actions (2013 and beyond)

- Develop a planning model for sustainable, mixed-use communities. Encourage pockets of self-contained communities with open areas between them.
- Extend the current network of walking and bicycle paths to interconnect existing communities.
- Continue to support and extend Maui's public transportation network
- Support the development of an inter-island electricity grid seabed cable to connect all of the islands of Maui Nui



# Conclusions and Next Steps

- Have the Mayor be responsible for driving the implementation the MCEA plan when it is formalized.
- We all need to work together to make this happen.
- Make Maui a model for a modern life-style that is balanced, sustainable and largely self-sufficient.

# “Yes, We Can”

QuickTime™ and a  
decompressor  
are needed to see this picture.

- Only took 8 years.
- Many more unknowns than “95% by 2020”
- The U.S. was behind and then surpassed

**"I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the Earth."**  
— Pres. Kennedy, May 25, 1961

QuickTime™ and a  
decompressor  
are needed to see this picture.

**Neil Armstrong and Buzz Aldrin set up a U.S. flag on the moon. June 20, 1969**