

Cheaper, Faster, Better in Action

Presented at:

NASA's Project Management Knowledge

Sharing Session

March, 2001

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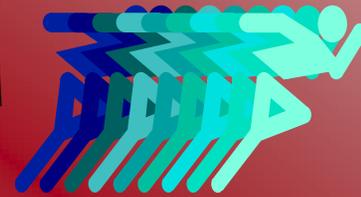
Program Director,

The Joint Air-to-Surface Standoff Missile

(JASSM) Joint Program Office



Cheaper, Faster, Better In Action



**Mr. Terry Little
March 2001**

What Are We Trying to Do?



- **Savings potential 45-60%**
 - Cost/requirement trades (15-20%)
 - Performance-based contracting (15-20%)
 - Other management actions (15-20%)

- **Cycle time reduction potential 50%**

- **Customer Satisfaction. . . . 100%**



*“Much madness is divinest sense
to a discerning eye;
much sense the starkest madness.”*



**EMILY DICKINSON
POEM 30**

Radical ends demand radical means

About Risk



- There is *NO* approach to reform that is both
Low risk and High payoff
- Possibility of personal and organizational
Failure is Real
- However, certain outcome of not reforming is
Worse and makes Risk palatable

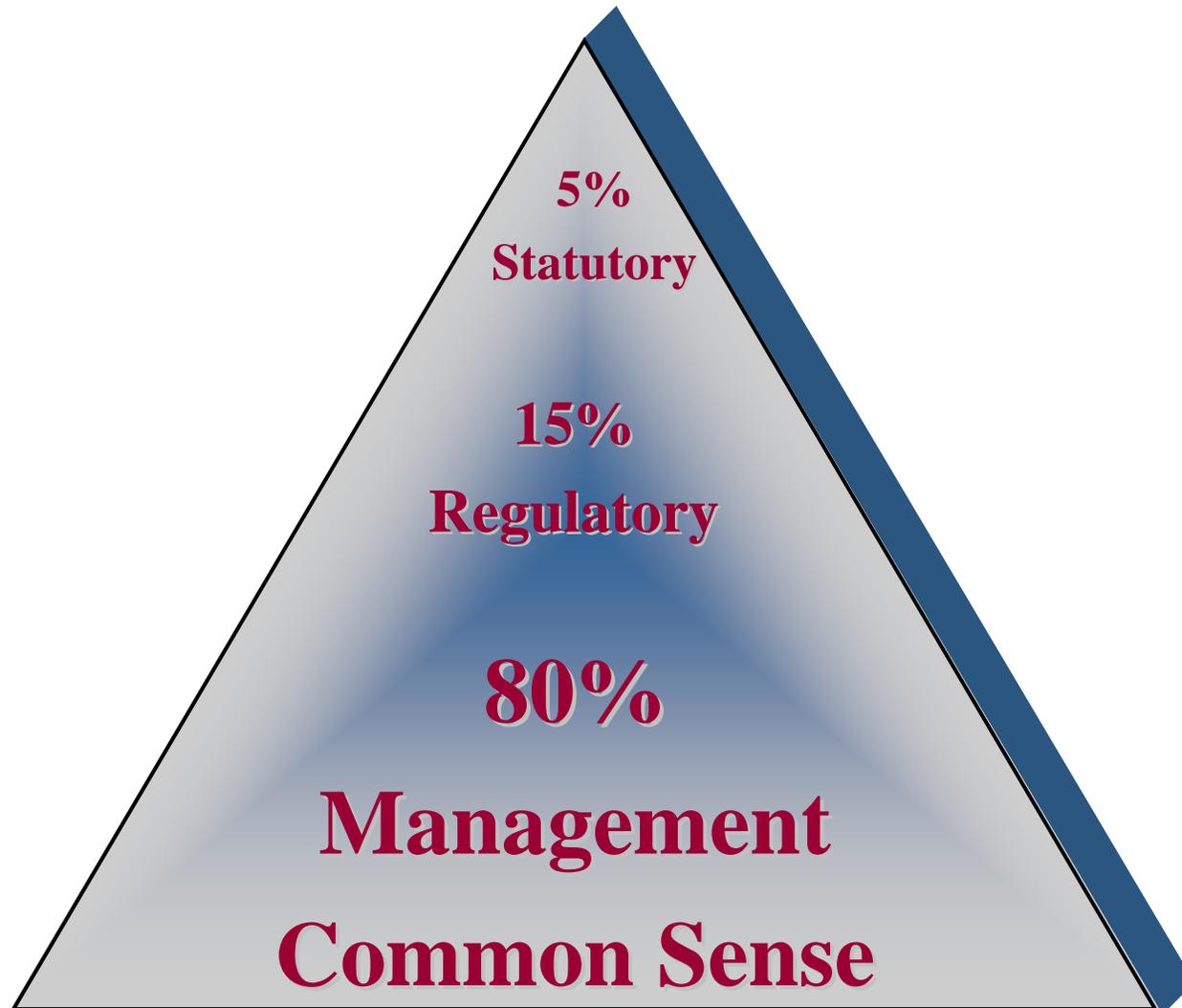
Execution, not planning, is key to success

Views of Reform That Annoy Me



- “We can’t reform until we have cultural change”
- “We can’t act until we get guidance”
- “Reform is OK for a _____ program but _____ programs are different”
- “Reform is fine, but we can’t throw-out the baby with the bath water”
- “We can’t reform until _____ does”
- “Reform will go away when we get a new administration”

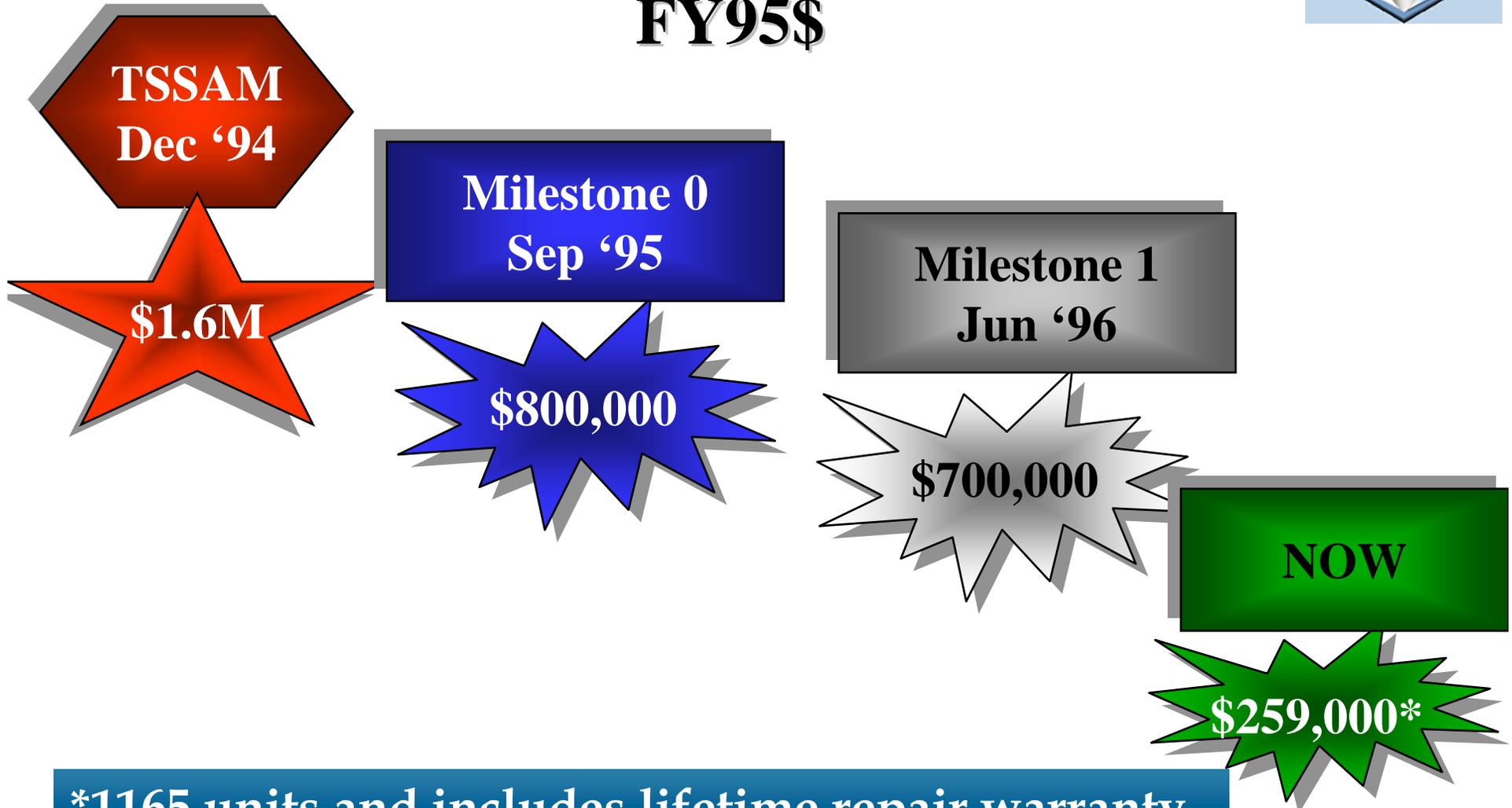
Reform Approaches



JASSM Unit Cost - - 2400 Units



FY95\$



***1165 units and includes lifetime repair warranty**

Overarching Philosophy



- **Emulate commercial model**
- **Focus on teaming**
- **Provide clear, consistent priorities**

**Embrace Acquisition Reform As
a Continuous Process**

Government and Commercial Benchmarking



GOVERNMENT HISTORICAL

COMMERCIAL

**BUYER/SELLER
RELATIONSHIPS**

**ADVERSARIAL,
OPPORTUNISTIC**

**COLLABORATIVE,
LONG TERM TEAMING**

BUYER SPECIFICATION

DETAILED 'HOW-TOs'

END ITEM PERFORMANCE

**BUYER-IN PROCESS
OVERSIGHT**

LOTS (WITH FLOW DOWN)

**LITTLE (WITHOUT FLOW
DOWN)**

**PRIMARY AWARD
CRITERIA**

**TECHNICAL PROMISES AND
LOWEST COST**

**PAST PERFORMANCE
AND BEST VALUE**

**DATA AND
REPORTING**

EXTENSIVE AND FORMAL

**MINIMAL, BY EXCEPTION
AND INFORMAL**

**BASIC FOR
NEGOTIATION**

COSTS

PRICE

**DEVELOPMENT
CONTRACTS**

COST TYPE

FIXED PRICE

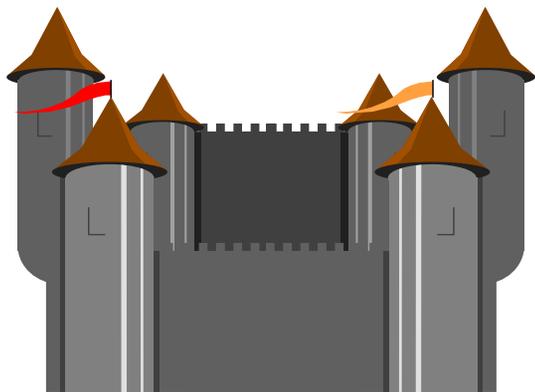
What's a Team?



“A group of people in a collaborative relationship working toward a mutual goal -- a goal that dominates all other individual and sub-group goals -- a goal for which every team member is mutually accountable”

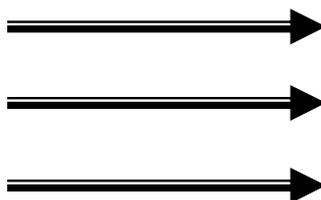


Changing The Relationship Paradigm



HIERARCHICAL RELATIONSHIPS

- ✍ **Parent/Child**
- ✍ **Physician/Patient**
- ✍ **Teacher/Student**
- ✍ **Coach/Quarterback**
- ✍ **Govt/Contractor (Old)**
- ✍ **Prime/Sub (Old)**
- ✍ **Staff / Buying Office (Old)**



COLLABORATIVE RELATIONSHIPS

- 📁 **Father/Mother**
- 📁 **Physician/Dietician**
- 📁 **Teacher/Counselor**
- 📁 **Left end/Right end**
- 📁 **Govt/Contractor (New)**
- 📁 **Prime/Co-Contractors**
- (New)**
- 📁 **Staff/Buying Office (New)**

Team Busting Behaviors - Some Examples



- **Contract unilateralism (changes, disputes)**
- **Protracted negotiations**
- **Traditional design review**
- **Award fees**
- **Keeping secrets**
- **Process police**
- **Government-approved data and plans**
- **Detailed government work statement**
- **“How-to” requirements**

The Big “T” Word



- **Trusting is hard**
 - It makes us vulnerable
 - It is counter-cultural
- **Teams without mutual trust are not teams**
- **Being trusted fosters trustworthy behavior**
- **Distrust should be earned**
- **The untrustworthy and the distrusting should go**

JASSM Mission



To produce and field by 2003 a cruise missile system providing revolutionary combat capability with an average production price less than \$400K (FY95\$) resulting from a successful Government / Lockheed Martin / Subcontractor teaming relationship----a relationship where the Warfighter gets a system that will maintain superb performance with a low cost of ownership over the life of the program, Lockheed Martin and its suppliers get a reasonable profit and the defense acquisition community gets a model for acquisition reform that others will emulate for years to come.

As of : 19 Apr 00

Role of Government Acquirers



- **Establish performance requirements**
- **Select contractor**
- **Facilitate with broader knowledge**
- **Incentivize team performance**
- **Work interfaces**

**Government core competency is project management
not technical**

Cost As An Independent Variable



- **Buying a project or program like you would buy a house or a car**
- **Making cost a technical requirement in the performance spec**
 - **Threshold - most you would ever pay**
 - **Goal - what you would like to pay (stretch)**
- **Non-stop process**

Cost/Requirements Trades



- **“Requirements” means ALL requirements**
 - **Derived**
 - **Imposed (not statutory)**
 - **Cultural or assumed**
 - **Individual**
 - **End User**

- **Basic tenets**
 - **No new or changed requirements without knowing and accepting program implications**
 - **Life cycle cost**
 - **Challenge everything, “Why not” approach**
 - **Creating incentive**

Requirements Change Process



- **Formal, bureaucratic process**
- **High level review**
- **Clear understanding of all requirements and impact of changes**
- **Instills discipline**
- **Structure to support block upgrade concept**

Controlling changes is key to meeting schedule and achieving favorable prices

Source Selection



- **Most important opportunity to affect program outcome**
- **Driving principle**
 - **Criteria reflects program priorities**
 - **Small evaluation team**
 - **Clear, interactive communication**
 - **Ignore non-discriminators**
 - **Discourage buy-in**

Open Source Selection



- **Collaborate with offerors on source selection**
- **Share interim evaluations with offerors for feedback**
- **Give offerors chance to refute final evaluation**

Government Process Evaluations



- **Government evaluations of contractor processes often have played a large role in source selections**
- **Two basic problems**
 - Evaluations not credible
 - Government buys products, not processes
- **Revised approach would use contractor past performance as discriminator**
 - Focus on product quality
 - Sole means of assessing future performance
 - Weight at least = to highest ranked factor

Using Past Performance



- The **BEST** indicator of future performance
- The **BEST** way to assess processes
- The **BEST** incentive for current performance

Fixed Price Developments



- **Chief difference between government and commercial is how (not what) we buy**
- **Most developments can and should be fixed price**
 - Intense discussions with offerors
 - Detailed planning
 - Requirements and change discipline
 - Cost / schedule provisions for risk
 - Evolutionary, incremental and variable outcome strategies

Price-Based Contracting



- **Why?**

- **Enormous contractor incentive (schedule, cost saving ideas...)**
- **Removes barriers to commercial companies**
- **Less hassle, paperwork, infrastructure**

- **How?**

- **Comparison to competitive prices**
- **Comparison to Analogous systems**
- **Independent government estimates**
- **Competition**

Subcontractor Management



- **Historical subcontractor management not conducive to low cost**
 - Prime gives subs firm requirements
 - Prime threatens subs to get low price
 - Primes ties to sub are short term
 - Prime defines work share and “How-to”
- **New approach treats subs as “Co-Contractors”**
 - Co-Contractors chosen early
 - Partners in the design process; no “how-to”
 - Long term, collaborative relationship
 - Government influences relationship

Subcontractor management becomes Co-contractor teaming

Co-Contractor Collaboration an Example Case



\$25 Power Transistor

**2500 in-lb
Stall Torque
Requirement**

\$15 Power Transistor

**1600 in-lb
Stall Torque
Requirement**

\$4.05 Power Transistor

Commercial Part

Savings: $\frac{\$20.95 \text{ Savings}}{\text{Transistor}} \times \frac{24}{\text{System}} \times 74,000 \text{ Systems} = \37.2 Million

Dealing with Subcontractors



- **Direct Government involvement with subs has very high payoff**
 - Part of the team
 - Unambiguous communication
 - It's where the money is
 - Stimulates prime
- **Privity of contract not a barrier**

Contractor Help Team



- **Concept pioneered in Air Force**
- **Cadre of people assigned to each competing contractor**
- **Function: Help the contractor win**
 - Interface with program office, other government
 - Advise, supplement contractor workforce
 - Assure clear communications, “out-of-the-box”
- **Working arrangement - trusted contractor agents**
 - At the direction of contractor PM (who has firing authority)
 - No source selection or oversight responsibility

Matrix Concept Should Die



- **Functionalization leads to non-team behaviors**
 - Goal sub-optimizing
 - Divided loyalties
- **Promotes “Pigeon-Holing” of individuals**
- **Original justification (people , work) is gone**
- **Adds bureaucracy without equivalent value**
- **Leads to excessive oversight, “policies”**



Program management is more about being creative, adaptable to change and persuasive than it is about learning functional nuts and bolts. Personal attributes and team building are more important to success than being smart or learning new tools and techniques

Leaders's Role



- **Providing a mandate, sense of urgency**
- **The vision and the ideas**
- **Creating and fostering alliances**
- **Reinforcing, motivating and protecting**
- **Assuming responsibility**
- **Dealing with barriers and disruptive influence**
- **Institutionalizing, educating**

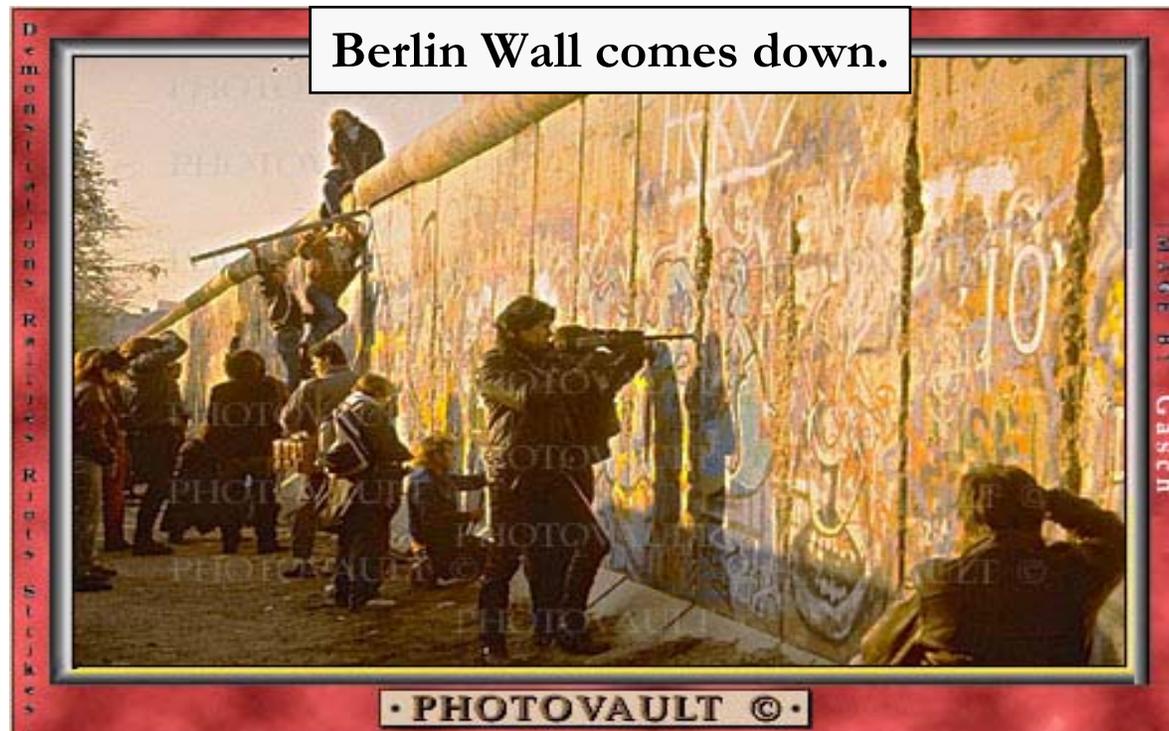
Don't look for the road



Innovate not Emulate



Deal with barriers and obstacles ruthlessly



Patience is not a noble virtue when dealing with disruptive influences



Never let them see you sweat



Waver not in confidence or resolve



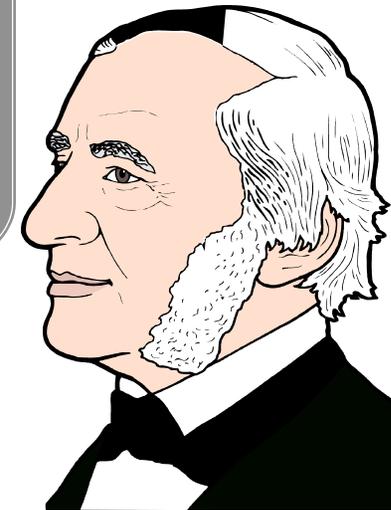
A third plus one is enough for a successful revolution



Consensus will always opt for status quo



“A foolish consistency is the hobgoblin of little minds, adored by little statesman and philosophers and divines.”

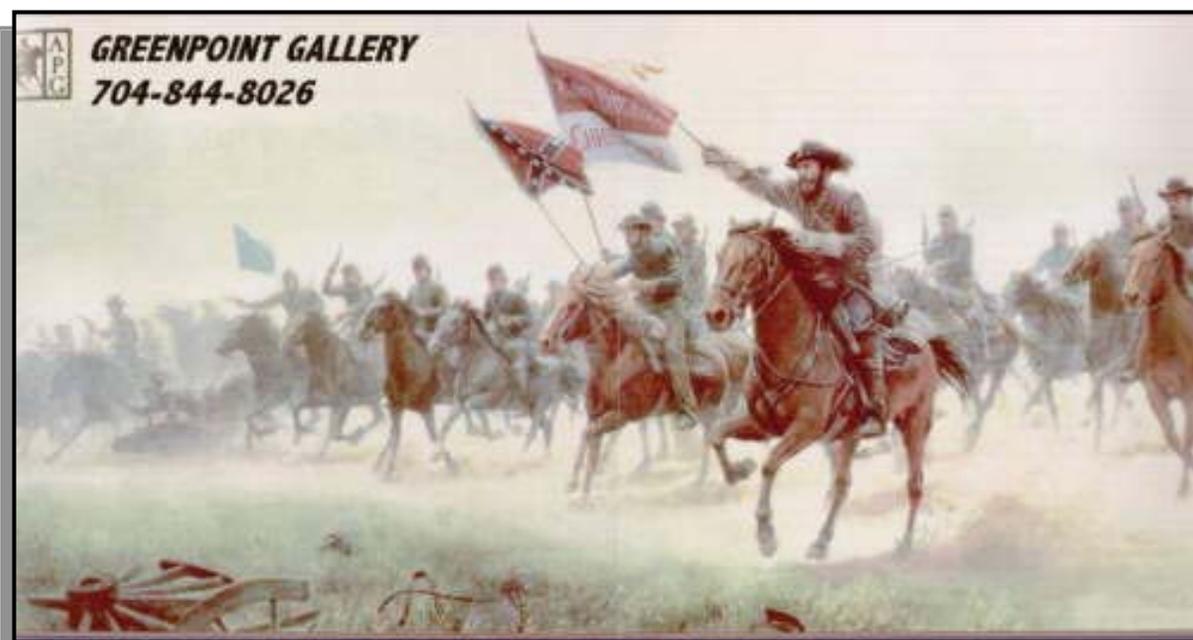


Ralph Waldo Emerson

If what you're doing isn't working, stop doing it



Ride to the sound of the guns



Lead and discern eye-to-eye



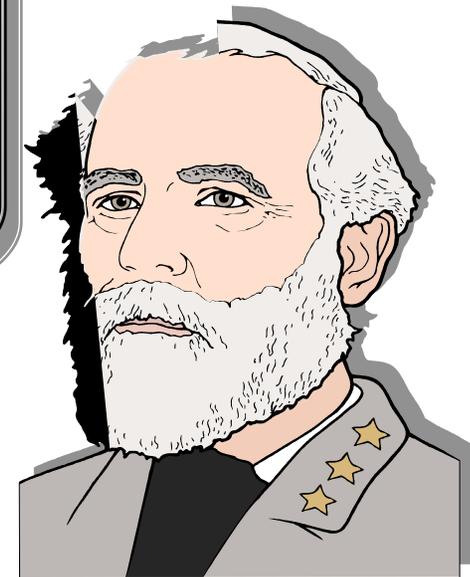
Leave your ego at home



Being direct is better than being diplomatic



*“I was too weak to defend,
so I attacked.”*



Robert E. Lee

Winning comes from transforming initiative to action



Under promise - - Over perform



“A man’s reach should exceed his grasp else what’s a heaven for.”



Robert Browning

Be ambitious is setting goals, realistic in expecting results