

Larry Bonfada

MOST OF WHICH I NEEDED TO KNOW ABOUT PROJECT MANAGEMENT I LEARNED IN THE ARMY

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Introduction

- Who I am & background
 - Software-intensive systems engineering
 - Technical computing
 - Was in mission- & safety-critical, now consumer
 - ~15 years as a Canadian Army Reserve Infantry Officer
- What I will share
 - Insights transferrable from the military to civilian world
 - Some line management, some project management
 - Hopefully, something of use & interest

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Principles of war

“The mere application of the Principles of War does not guarantee victory. Circumstances dictate the relative importance of each principle and in some cases a commander is unable to adhere fully to one principle except at the expense of another. A commander's challenge is to know where to place the emphasis at any given moment. Thus, these principles are not immutable laws, but rather they are a guide to action.”

—Canadian Army doctrine

Selection & maintenance of the aim	no change
Maintenance of morale	no change
Offensive action	Initiative to complete
Security	Risk management
Surprise	No surprises
Concentration of force	Concentration of effort
Economy of effort	no change
Flexibility	no change
Cooperation	no change
Administration	no change

Flexibility

“It seems that (flexibility) is a large, general-purpose tent under which chaos, confusion, and incompetency are kept well hidden from the public”
—General Creighton Abrams

- “Do not confuse focus for inflexibility”
- “Flexibility results from having a sound plan from which to adjust”
 - Branches (contingency plans) & sequels

Establish & maintain command, control, & communications

- Understand the different command relationships & use them
- You must design & organize your staff
- Create org charts & distribution lists early & use them
- Eg:
 - Large organization
 - No org charts or distribution lists
 - No one knew “who’s who in the zoo”
 - Resulting in confusion & difficulty in communications, especially for new staff!
 - My department
 - Established teams early with nested distribution lists
 - Clear chain-of-command and web-of-communication

Differentiate between chain-of-command & web-of-communication

- Chain-of-command
 - For policy and executory direction
 - Tight command (not necessarily control) of staff & resources
- Web-of-communication
 - Generally free amongst all (modula sensitive/confidential/political issues)
 - Encourage but ensure it doesn't overload staff
 - Allow for control messages
- Both are difficult in today's environment & culture
- Eg:
 - "You're working on what??!! Because who asked you??!!"
 - Management bypassed on executory direction, but expected to communicate routine staff information

Organizational design

“The Mark 1 human brain hasn’t changed in 10,000 years”

- Military organizations haven’t really changed in thousands of years
 - Greek and Roman armies are very similar to modern armies
- Span of control is 7+/-2
 - Less for highly complex, dynamic situations
 - More for routine, repetitive, simple tasks
- Does 7+/-2 sound familiar?
- What kind of project are you managing? What is your span of control?

“The brightest and the best always think they can manage everything.
Smart people are stupid that way.”
—PJ O’Rourke

Rest

“You can get by with 4 hours of sleep a night...
As long as you don't have to think!”

- Soldiers on patrol
 - Sleeping while walking
 - Hallucinations
- Army has sleep & rest management programs in place to ensure leaders make decisions with a clear head
- Project managers (& VPs?)
 - Answering emails at 4 AM
 - Pre-empting responsible staff
 - Bragging about how little sleep they get => dysfunctional org
 - Mistakes (usually large)

Delegation

“Raise the flagpole, Mr Bonfada!”

- Recognize you are not an individual contributor but a
Commander/leader/manager
- Delegate to appropriate staff (D&D)

Commandos aren't line soldiers... and vice versa

- Projects deal with people
- People in groups tend to the mean
 - Commanding (managing) a team of commandos is different from commanding a normal team or recruits
 - Know what you've got
- Eg:
 - Company of qualified section commanders
 - Department of juniors

Think 2-up & 2-down

- Project exists in an organizational context
- 2-up & 2-down refers to the level of organization
 - 2-up
 - Org/manager to which the project reports
 - Org /manager to which that org reports
 - 2-down
 - Your direct reports (sections/teams/departments/etc)
 - Org below that (if it exists)
- You are tasked by 1-up & task 1-down, but must appreciate further up/down org
- Understand motivations & agenda of staff

The commander's intent

“The paradox of war in the Information Age is one of managing massive amounts of information and resisting the temptation to over-control it. The competitive advantage is nullified when you try to run decisions up and down the chain of command. (...) Once the commander's intent is understood, decisions must be devolved to the lowest possible level to allow these front line soldiers to exploit the opportunities that develop.”

—General Gordon R Sullivan

- Ensure your intent is understood
 - When the situation changes or you did not have a correct understanding of the situation, understanding your intent allows your staff to take actions towards fulfilling that intent
- Eg: I frequently use the phrase “My intention is...” followed by a description of the end-state I’m attempting to reach
- Cautions
 - Must have organizational norms of deliverables, processes, and standards to be completely effective
 - Beware of “management by objectives”

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Orders

- Orders are directions given to tasked staff and organizations
- Many different types of orders:
 - Warning orders (1/3-2/3 rule)
 - Operations orders
 - Administrative orders
 - Fragmentary orders
- Similarly, many different types of plans
- NATO standard (SMESC)
- Situation
 - 2-up
 - Sideways in org
- Mission
- Execution
 - Concept of operations
 - Commander's intent
 - Grouping & tasks
- Service support
- Command & communications
 - Who is in charge?
 - Who reports what how & when?

Concept of operations

- Think “project architecture”
 - Big picture of how the “execution & control” phases of your project are conducted
- For military attacks, it’s often a choice of left flanking, right flanking, or frontal assault!
- For software engineering, it might be one of waterfall, incremental, evolutionary, spiral etc
 - See IEEE/EIA 12207.2-1997 Annex I
- Does your organization have a menu of standard project architectures?

Phases are control mechanisms

- Projects occur over a timeline
- Need a way of controlling tasks & communicating across that timeline
- Phases provide that control mechanism
- Phases partition the timeline of a project
 - Project can be in one and only one phase at a time!
 - If you loop back, you've re-planned/re-baselined!
- Phases are not activity types (ie: process group)
- Phase transitions can be based on
 - Time
 - Events
- Name them appropriately
- Eg: 'Execution & control' is not a phase

Schwerpunkt

- “Focal point” or “point-of-main effort”
- Ensure everyone understands your schwerpunkt in each phase!
- The schwerpunkt may change with each phase (or even within a phase)
- Be prepared to reinforce the schwerpunkt if necessary
 - Contingency plan if foreseen

Many other thoughts.. maybe for another time!

- Have an uncommitted reserve
- Importance of drills
- Thinking tools: Estimate of the situation
- Characteristics of military (ie: technical) writing
- Metrics: Beware the “body-count” mentality
- It’s a team effort!
- Know which battles to fight!
- No plan survives contact with the enemy
- “A good plan, violently executed now, is better than a perfect plan next week.”—Gen George S Patton
- “Ask anything of me but time!”—Napoleon Bonaparte
- Just because you have nuclear weapons, doesn’t mean you should use them...