

The KDL is a community effort. It's success depends on a continuation of that multi-perspective, brutally honest and thoughtful input.

The KDL is founded on concepts of high reliability, organizational learning and high performance. Content and structure derives from initial conversations that Rex Mann, Jack Kirkendall and Anne Black had with ICs, Fire Staff and Line Officers during the 2007 fire season in Idaho and Montana. That work was prompted and funded by Marc Rounsaville. The ideas are being further developed through a collaborative Joint Fire Science Project between NFS researchers (Black, Gebert, Canton-Thompson – RMRS, McCaffrey – NRS) and academics (Steelman – NCState) and the Fire Organization (Host units, IMTs in Regions 1, 2, 4 and 6 and members of the Northern Rockies Coordination Group). The specific notion of a Significant Cost Key Decision Log, and significant funding for this pilot, comes from John Phipps. Critical feedback and input have come from the Atlanta and Pheonix NIMO teams, the NFS's National Leadership Team, CPR members on the 2008 Indians fire, and members of the interagency HRO Community of Practice. The NFS's Digital Visions Enterprise Team is our IT partner.

The KDL continues to be refined throughout the 2008 fire season as we pilot the concept and look forward to learning from results.

**Key Decision Log Purpose:**

**Maximize organizational performance and  
facilitate real-time and post-incident learning  
on fires**

by:

capturing key decisions, activities, and outcomes, and  
attributes of the environment within which these occur

Using:

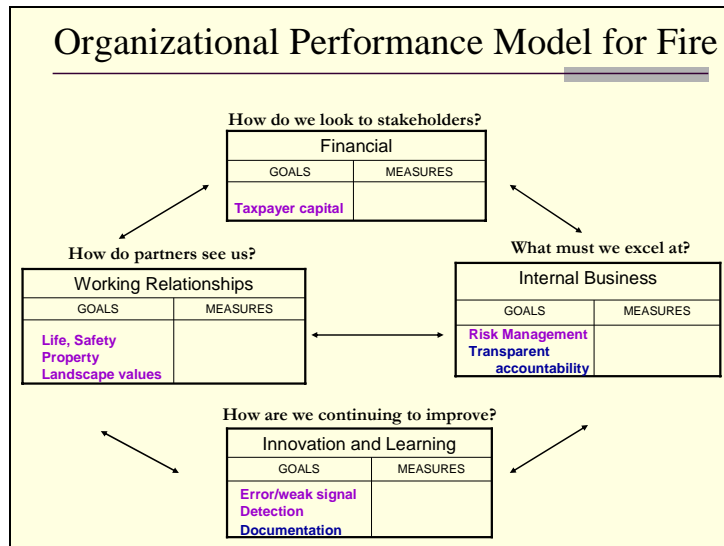
**A scalable, electronic and web-based system**

**2008 Goal: Roll out the KDL system  
(use, learn, tweak, populate db, test utility)**

In this presentation, I want to provide an overview of the Key Decision Log system. There is a method to this madness, so I want to start with a conceptual overview, introducing the main theoretical foundations of the project before dropping down into the weeds to talk about what exactly it is you will see and have the opportunity to participate in.

Purpose –

2008 – key words! Pilot. Use. Learn. Tweak. Populate central db. Test.



There are 3 concepts I'm going to introduce.

The first is known as a 'balanced scorecard.' Originally developed by Norton and Kaplan at Harvard, the idea is that one way to look at organizational performance – in our case fire – is to ask four inter-related questions:

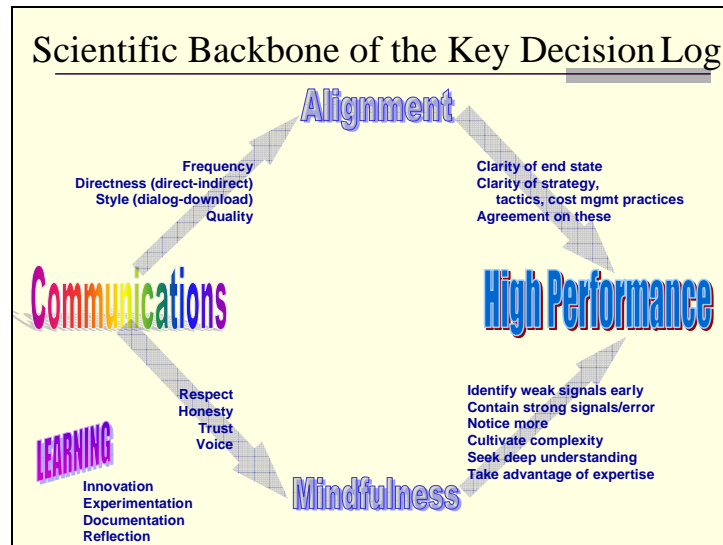
- 1 – what must we excel at? This looks at our internal business.
- 2 – how do we look to stakeholders? This is our financial picture.
- 3 – How do partners see us? This is a measure of our working relationships – communication and collaboration.
- 4 – How are we continuing to improve? This looks at our experimentation and feedback culture and loops that drive innovation and learning.

In a nutshell, in fire, we need to be excellent Risk Managers. We also need to excel at transparent accountability – so that we can learn from ourselves, our partners know where we're going and why, and we can quickly and completely provide the rationale for the financial decisions we make.

If we look deeper at Risk Management, we can see it is comprised of: life, safety, property, landscape values, taxpayer capital and error detection/weak signals. Transparent accountability is based on good documentation and good communication/accessibility of that documentation.

Thus, the balanced scorecard concept gives us a content structure for the KDL. We designed the KDL to capture key decisions and create - real-time - the documentation for transparent accountability and to support continuous improvement in risk management. But HOW do we do that? To determine what aspects of each of these goals to measure we lean on previous research into high performance.

Developers of Balanced Scorecard notion:  
Robert S. Kaplan, David P. Norton



We draw on the research from some old friends (James Reason – error detection and organizational error, David Garvin – learning organizations, Karl Weick, Kathleen Sutcliffe – high reliability organizations, among others). This suggests that skillful and high quality communications creates the foundation for greater alignment and mindfulness among the partners in an organization, which leads to higher performance, particularly when set in an organizational culture of continuous learning.

The Key Decision Log system seeks to measure these for each area of the overall organizational performance model - internal business goals, working relationships, innovation and learning, financial management. It does so by soliciting information on key aspects of each, such as expectations versus actual communications, clarity of the goal or end state, alignment of principle partners on strategy and tactics, practices of mindfulness among the subunits, and our capacity for on-line reflection.

The KDL combines these to provide:

A real-time documentation package  
 Capturing key business decisions (what and why), and  
 Key business interactions (how).

We seeking to measure and monitor these aspects of our performance model with the KDL. **The urgent need is for transparent accountability, particularly of our decision making and the implications on cost. The Significant Cost Key Decision Log captures strong financial signals and when entered into the web data-base, provides leadership with a quick and succinct way to build organizational SA.**

However, we know that simply doing more of the same – even if it’s adopting best practices everywhere – may not be sufficient. We need to see more, or see in a different way, in order to gain new insight. This is the purpose of the **Organizational Learning Logs** – the remainder of the forms available on the KDL. We’re looking for volunteer

units, teams and incidents to help us test the full system- both the Significant Cost KDL and the Organizational Learning Logs this year.

This allows us to simultaneously do several critical things:

Provide a bigger 'bubble' or perspective on incident and collective levels for leadership - Regional and National players. This allows them to know how best to support the field; provides a more complex story for external audiences such as OMB and Congress. It documents decisions and captures hard data for more effective and transparent accountability and collaboration- the story for others.

At the same time, it captures key interactions which allows us - as individuals and teams - to gain insight into our practices and effectiveness - helping to identify weaknesses and strengths to help us move towards higher performance.



The last notion I want to bring in here is this concept of 'practical drift', which I first ran across reading Scot Snook's book 'friendly fire' about the downing of 2 Blackhawk helicopters in northern Iraq during the first Gulf War. (good read!)

The concept is this: Each one of us makes locally rational decisions based on what we see at the moment. That is, knowing that we are the experts of our local system, we adapt organizational protocols and procedures to better match local conditions - practical drift. All well and good. Except when no one stops to check whether these local adaptations are beginning to collide or cancel each other out. This is particularly difficult to detect when 'minor' adaptations cause mis-matches across boundaries - across geographic areas, functions, organizational scales because by definition these are at the margins of our local expertise/business. So, setting up structures to focus attention on these situations - the difference between intention and actuality (what we intend to do and what we actually do), and periodically checking in to ensure that all parts of the system are in alignment and not working at cross purposes to each other.

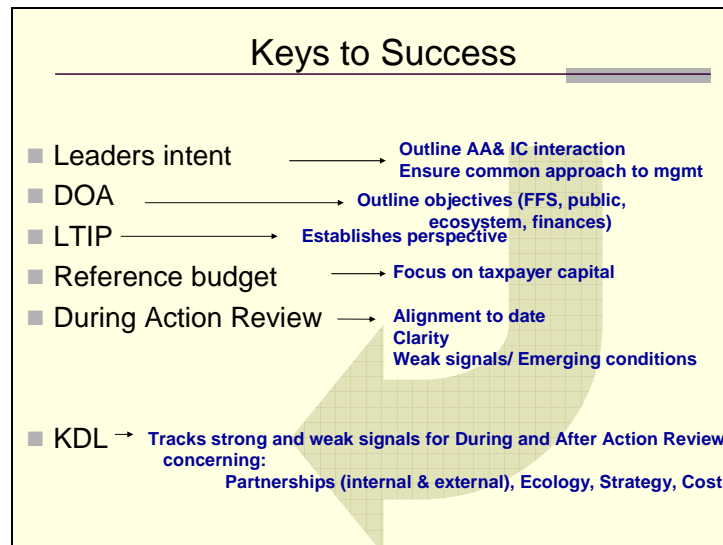
Fire is an excellent example of this. Pick up either of the Brookings reports from the last two years. What do they say – there is no ‘evidence of inadequate or inappropriate fiscal diligence’ (5/152007). Local responsibility. Problem is: the collective outcome of these local decisions is unacceptable.

The KDL is intended to help us understand how our system actually works and to help us notice more – weak, small and large signals.

That’s the intellectual stuffing of the Key Decision Log.

Where are we with developing and implementing this? – here in June of 2008

What does it mean for you all? There is obviously some data, some information that needs to be collected ... and you all – as host units and team members – are the ones who have this information.



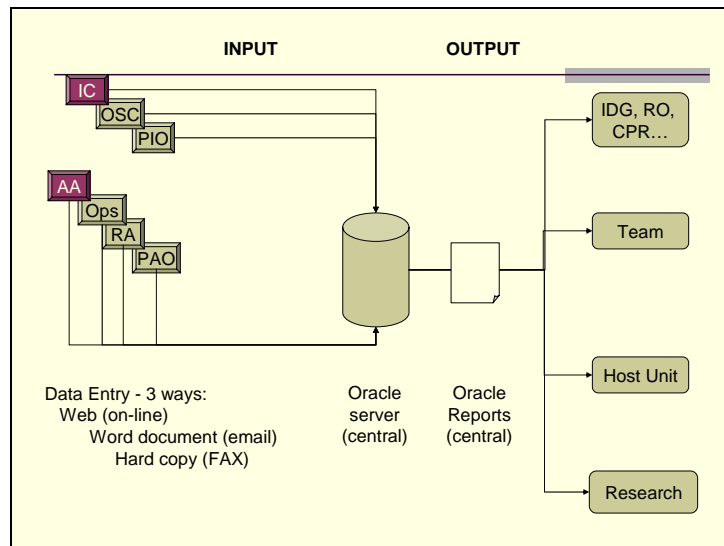
Here’s how I see these various ‘keys to success’ from the Accountable Cost Management strategy fitting together.

The leader’s intent and Delegation of Authority and LITP outline end states and expectations (communication, objectives, strategies, flexibility)

The reference budget is designed to help focus on guarding taxpayer capital and making good financial risk management decisions.

The During Action Review is an intentional pause during which the key players – the IC and AA – sit down to check for practical drift, for weak signals coming from each of the main focus areas (working relationships, land management objectives, human safety, financial efficiency), and to ensure the system is still clear and aligned on goals.

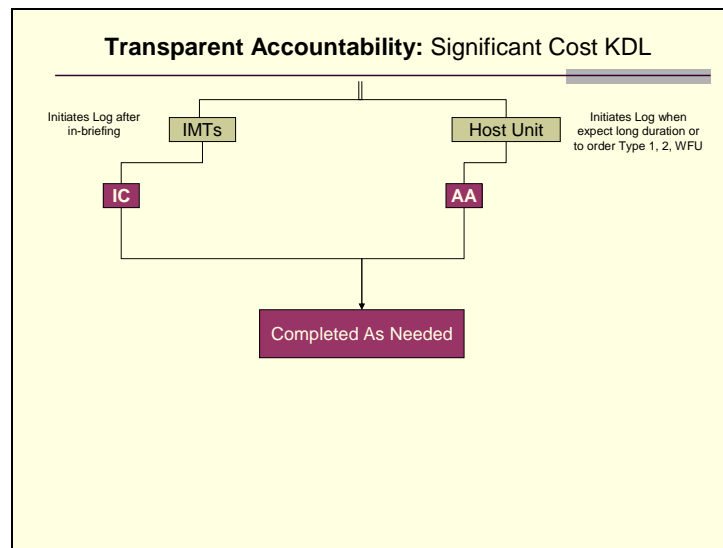
The KDL provides the mechanism to capture and track these signals (strong financial signals in the Significant Cost KDL, and weak signals in the remainder of the KDL). This information is useful at a variety of levels: it is excellent background for discussion during the DAR's; it helps build an audit log; and it helps collective levels of the system monitor local situations (Area Command, CPRs, IDG) and provide early assistance where such is warranted.



What we've tried to do is to create a structure that minimizes burden on the field and maximizes utility information return. It focuses on the IC and AA relationship for the Significant Cost KDL, but also involves several other roles – the Operations Section Chief and Public Information Officer on the team, and Fire staff, the Resource Advisor and Public Affairs staff on the Host Unit for the Organizational Learning Logs.

The system is designed as web-based forms that automatically save your data to a central server. This data is then collated into a daily report which will be available on the same URL that the forms reside on. If the web is not convenient, there are electronic forms you can fill out and submit (key\_decision\_log@fs.fed.us), or print out and fax in (202.205.1551; Attn: Becky).

Currently, the central system is only available on the Forest Service network. This means that if you're not a FS employee, you'll need someone with a Lotus Notes account and a FS computer to establish a VPN connection. That is, either the participant (IC, AA, OSC, PAO, et) or someone assisting them has to access the URL using a FS Lotus Notes short-name and password. We're working towards a system that non-FS staff can use.

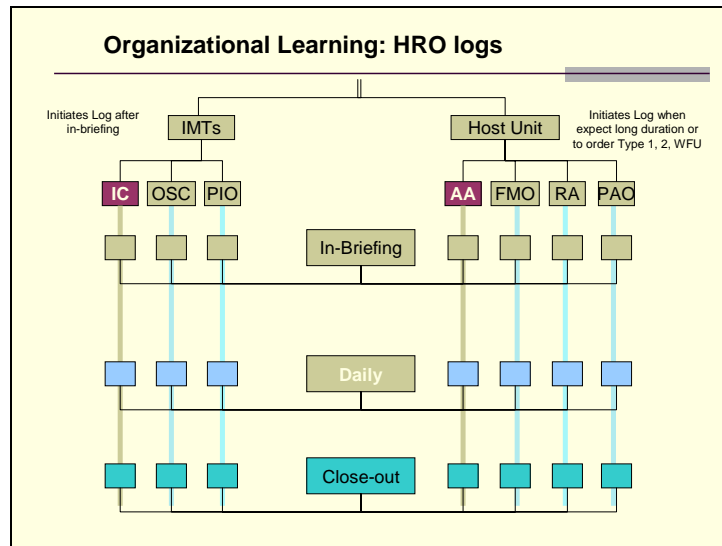


What does this actually mean for you? The short answer is less than 15 minutes a day. For some roles, less than 5.

The KDL actually brings together two complementary sets of logs:

One for transparent accountability and upward communication (shown here), focused so far on costs, but some teams have used these for key ACTIONS, such as for the Evans Road Fire in which finance, ops and others entered actions and decisions they made.

We're calling this the 'significant cost KDL'. It is narrative in nature.



The other type of log is designed to facilitate organizational learning at multiple scales. It captures emerging/weak signals, intent, alignment and actions – measures of the five components of our scientific backbone.

These forms capture three types of information on an incident through short, closed-ended questions:

In-Briefing: Just after the in-briefing Team and Host unit participants capture goal clarity, management flexibility, the first indications of alignment, and communications information.

Daily: On a daily basis, each role captures basic day-to-day operations, key decisions, alignment and first indications of weak signals.

Close-out: At close-out, a third set of forms captures measures of mindfulness, reassess clarity and communications, and captures perceptions of performance.

Together – all three of these types of information provide the documentation and data to populate and test organizational performance.

Information provided to the system is available to the participants.

## Significant Cost/Action KDL

For decisions with 'significant' implications:

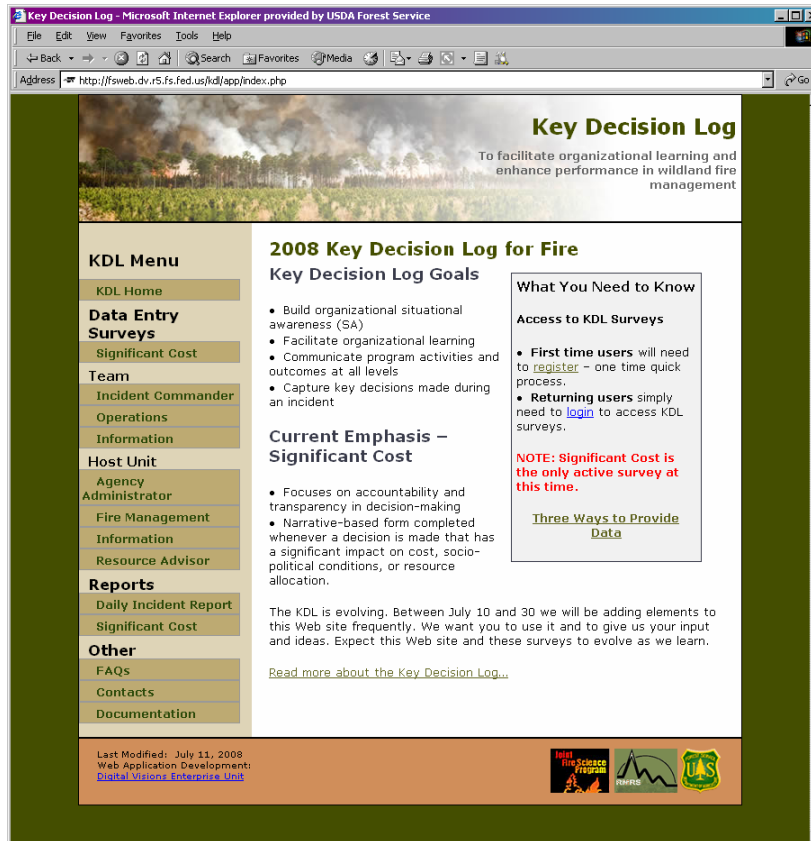
- ± >\$100,000 near term or life-of-event
- socio-political
- resource allocation

Content:

- Basic fire info (name, host unit, team name)
- Basic decision info (role of decision-maker, time, date made)
- Decision description
- Rationale – why needed, why most effective (values/benefit, probability of occurrence and success), basis for determination
- Alternatives considered
- Estimated cost implications – deviation from reference budget (+, -) near term and downstream
- Concurrence – role of those participating (eg. FS, RF, RFR, IC, AC...)

For 2008, the emphasis for Accountable Cost Management is the Significant cost (or action) KDL. However, we wanted to give you the full picture as we believe that the organizational view generated through these forms will be critical for significantly improving organizational performance.

The remainder of this presentation focuses on this Significant Cost/Action KDL.



This is an initial screen capture of the website.

**Key Decision Log - Lane 2 Fire**

**Key Decision Log** is a process to document decision making. The process allows for tracking decision making while exploring alternatives and collaborations for cost management. This process will document the thought process when making decisions.

| Who/<br>Date/<br>Time       | KEY<br>DECISION                                | ASSOCIATED RISKS   | ALTERNATIVES<br>CONSIDERED                             | RATIONALE<br>FOR DECISION   | COST IMPLICATION |   | AARC<br>CONCURRENCE |
|-----------------------------|--|--|--|---|------------------|---|---------------------|
|                             |  |  |  |   | SHORT<br>TERM    | LONG<br>TERM  |                     |
| IC/<br>FFMO<br>6/29<br>1200 | Evacuate Crown King and Horsehead Basin        | Coordination. Inaction carried the greatest risk as the threat to the public was growing rapidly.          | No options   | Safety was the core priority on the incident. Fire fighter access.  | N/A              | Cost of YCSO support to maintain closure  | AA concur           |
| AA/<br>FFMO<br>6/29<br>1300 | Order Sciaccia's Type II Team                  | Complexity analysis bordered type I. Scrutiny on the decision given the values at risk.                    | Order national Type I IMT                              | Speed and focus was the key to mitigating the risk. Type I IMT would take to long. Local IMT had necessary expertise. Quick mitigation of WUI threat. | N/A              | \$10k/day savings (based on historical size of teams)   | AA concur           |
| AA/<br>FFMO<br>6/29<br>1600 | Cost-share agreement initiated w/AZ State      | Long-term relationships. Fiscal accountability. Brokering an agreement in the best interest of the agency. | No cost share. USFS would bare the burden of the cost. | Policy direction is clear. WUI requires commitment from non-USFS agency.  | significant      | Significant cost saving of federal dollars, potentially in the millions.                        | AA/IC concur        |
| IC/<br>OPS<br>6/29<br>2200  | Initiate burn out operations around Crown King | Failure to hold perimeter could result in significant structure loss.                                      | No burn-out. Abandon town.                             | Finng operations had a much higher probability of success than a house to house fight.  | N/A              | Significant cost savings in avoiding claims and the ability to scale down structure protection. | IC concur           |
| AA/<br>6/29                 | Large strategic                                | Large-fire growth  | Aggressive perimeter                                   | Ecological change   |                  | \$ 1million+  | AA decision         |

Here is an example KDL. It is intended to spur discussion and thinking. You'll note that the column headings do not correspond exactly to the columns posted on the KDL website as of 7/11/08. This is an evolving project and we're adapting the forms as teams and units use them and give us feedback. You'll also note that this team decided to enter actions as well as decisions and by other roles than simply the IC and AA. They use short bullets in the table then add detail for each decision below. If you decide you want to add more information than is currently requested, by all means do so, and send it in. We'll enter everything you give us and we'll figure a way to feed it back to you as intuitively as possible.

## Contact information

- Anne Black, Rocky Mountain Research Station; PI for the KDL
  - [aebblack@fs.fed.us](mailto:aebblack@fs.fed.us)
  - 406. 370.1513
  - <http://leopard.wilderness.net/staff/black.htm>