

# ***The People Side Of Improvement*** **Success Factors for Sustainable Change**

By KAY SEVER, CMC, CQIA  
Sustainable Improvement Consultant & Coach  
Connecting People To Performance & Profits



## **Creating an “Army of Eyes” to Improve Performance**

On December 17, 1903, Wilbur and Orville’s goal at Kitty Hawk was to fly as far as they could – to take off, spend as long as possible in the air, then land without crashing. Gauges for air speed, altitude, fuel remaining, engine speed, flap position, landing gear position, etc. were not essential data to the mission that day. Fast-forward 106 years to 2009 where flying machines are engineering wonders. Flying these aircraft without any gauges would be dangerous, maybe even impossible. The pilot must be aware of the status of many systems that work together to permit flight and enhance safety. The gauges in the cockpit allow him to “see into” the engine, hydraulic system, and fuel tank, and give him early warnings of problems. These early warnings maximize the time he has to take corrective action before a problem becomes an emergency. These gauges have become mandatory equipment in every aircraft because the information they provide helps the pilot maximize safety and minimize fuel consumption and time in the air.

An analogy can be made between the gauges in a cockpit and low-level key performance indicators (KPIs) linked to process performance. Just as gauges are linked to major components of an aircraft, low-level measures can reveal how a mine or plant is performing where inputs are turned into products or services. These low-level measures provide a “window” into the effectiveness of processes that:

- Link people and equipment (mobile equipment operators, maintenance work or contractor performance.)
- Require support functions like purchasing, the warehouse, and permitting to work together to support production.

If your company is not using low-level measures, you are probably managing processes based on what you THINK is happening in day-to-day activities. You are also missing the opportunity to connect key measures to the workforce so that employees understand how their work adds value and how they contribute to bottom line results. Low-level KPIs give departments the ability to:

- Respond quickly to problem correction.
- Know when or if they are meeting expectations.
- Identify opportunities for improving equipment performance and reducing cost, rework and delays.
- Objectively discuss and solve process problems with other departments.

Tons/hour (TPH) has been used for years in mining and downstream conversion/processing facilities as THE productivity and performance measure. Entire budgets have been built around this number. TPH is an appropriate high-level measure, but to understand the drivers behind the TPH value, **we must take the ratio apart** and examine the drivers for tons and hours separately. When we take that step, we have entered the world of low-level KPIs.

Taking the ratio apart means identifying the drivers of tons (load factor, haul speed and distance, penetration rate, feet drilled, etc.) and hours (delays - maintenance and operating). The next step,

connecting the measures to the people who can directly affect a change in the values of the drivers, **creates all the value**. One of the greatest challenges in improvement work is helping management see the value of low-level measures. Low-level measures can turn a workforce into an “army of eyes” that can help identify and correct problems at the source. Without these measures, employees are quantitatively “running blind” in their day-to-day work, only knowing what management reveals to them about their processes, problems or performance. They probably know the TPH goal and if the operation is meeting that goal, but may not understand how they can help improve performance. Just as appliances must be connected to a power source to be useful, connecting low-level KPIs to the workforce empowers the workforce to improve performance at low levels (i.e., from the bottom up). TPH and other high-level measures will improve as a result of this work.

Thought for the month:

**Low-level KPIs change what employees and managers “see” when they come to work everyday and help take employees off “autopilot”.**

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Kay Sever, CMC, CQIA implements improvement programs and management development programs for mines, plants and service organizations. Her approach balances commonly used tools and methods with a focus on value creation and the “people side of improvement”. Kay works with every organizational level and department to find the highest dollar opportunities and remove barriers that prevent sustainable change. She helps management teams lead improvement and better execute the budget, capital approvals, incentive plans, communications, etc. See [MiningOpportunity.com](http://MiningOpportunity.com) for details on her services and contact information. Look for the mining edition of her first book “Building An Opportunity Culture – Addressing the Barriers That Steal Profits and Prevent Sustainable Change”, available on her website under Products/Books.