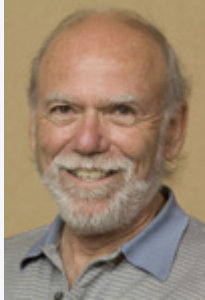


Director's Corner

24 May 2007



Barry Barish

Troika proposed to manage ILC engineering design

Developing an engineering design for the ILC represents a formidable challenge with many hurdles in our path. We must satisfy the different goals of our collaborating countries, maintain regional balance, keep flexibility to be responsive to results from the LHC and prioritise our R&D resources to support the design. Lastly, we must develop a robust engineering design, while maintaining a very aggressive schedule. There are just too many separate tasks involved for a single manager to oversee the effort and therefore we are proposing to literally borrow the famous Russian symbolism of a "Troika," and create a Project Office consisting of three project managers: Marc Ross (Fermilab), Nick

Walker (DESY) and Akira Yamamoto (KEK). This team will have both shared and separate responsibilities, and Marc Ross will serve as the initial chair of the group.

Symbolically, a *troika* enabled conquering the vast expanse of Russia by negotiating difficult roads at great speed with a synchronised trio of horses. The centre horse trots pointing straight forward, while the side horses gallop with their heads facing outward. There are many references to troikas in Russian literature, but the most dramatic and well known is from the *Dead Souls* by Nikolai Gogol. In passages from this story where his hero-villain, crosses Russia in a ruse to buy up "dead souls," he describes the *troika* and coachman as "a man bearded and mittened. See him as he mounts, and flourishes his whip, and breaks into a long-drawn song! Away like the wind go the horses, and the wheels, with their spokes, become transparent circles, and the road seems to quiver beneath them, and a pedestrian, with a cry of astonishment, halts to watch the vehicle as it flies, flies, flies on its way until it becomes lost on the ultimate horizon--a speck amid a cloud of dust! "

Maybe a little less poetically, we will present our detailed plan for carrying out the ILC engineering design, how the troika of proposed project managers will manage that effort and how we will ultimately document this phase in an Engineering Design Report (EDR), first to ILCSC in May, in a preliminary form, and at FALC in July. Then we will present the final plan for approval at the ILCSC and ICFA meetings in Korea in August.

The planned division of responsibilities for the project managers will be as follows:

Marc Ross - Project Manager for Global Systems and Chair of Project Office

Nick Walker - Project Manager for Accelerator Systems

Akira Yamamoto - Project Manager for Technical Systems

Global systems include conventional facilities; accelerator systems include sources, damping rings and beam delivery; and technical systems include the main linac components. All three of our project managers are very skilled and will complement each other well in these roles.

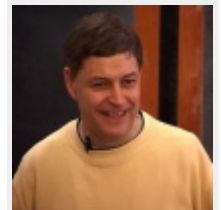
Creating a project manager office consisting of three managers is not without its risks. Just like for the troika, to be effective the office must be totally synchronised, yet retain their individual roles. To insure that this works well, I plan to personally be very closely involved in the functioning and success of this office, and this office will directly report to me. The main advantages of having three persons share this enormous and challenging job will be the added strength it brings us, plus the regional balance it will provide. I am confident that this very strong team project management team will provide us with the energy, strength and momentum to develop a robust engineering design for the construction project that is ready to successfully propose for government funding.

Let me end by continuing just a little further with Gogol's description, and hopefully these words will similarly describe our *troika*, "Is not the road smoking beneath your wheels, and the bridges thundering as you cross them, and everything being left in the rear, and the spectators, struck with the portent, halting to wonder whether you be not a thunderbolt launched from heaven?"

-- Barry Barish



A troika, a Russian sled drawn by three horses



Marc Ross, Nick Walker and Akira Yamamoto designated GDE Project Managers