



# RDR Report Writing

Nan Phinney  
SLAC

A horizontal line of small, light blue dots that extends across the bottom of the slide.



# GLC Report

Working model is the 2003 GLC Report ch 4-7

<http://lcdev.kek.jp/RMdraft/>

- 4) Accelerator Design
- 5) Conventional Facilities
- 6) Sites
- 7) Costs

Total pages ~ 225

RDR current draft also has Technical System chapter



# Draft Outline (1)

## I) RDR Introduction

RDR Org and process (Walker) 5 pages

## II) Accelerator Design

1. ILC Parameters (Yokoya) 5 pages
2. Electron Source (Brachmann) 10 pages
3. Positron Source (Sheppard) 15 pages
4. Damping Rings (Gao) 20 pages
5. RTML (Tenenbaum) 10 pages
6. Main Linacs (Adolphsen) 20 pages
7. Beam Delivery (Seryi) 20 pages
8. Beam Dynamics 10 pages
9. Operations and Availability (Himel) 15 pages



# Draft Outline (2)

## III) Technical and Global Systems

- |     |                                       |          |
|-----|---------------------------------------|----------|
| 1.  | Magnets (??)                          | 5 pages  |
| 2.  | Vacuum (Noonan)                       | 5 pages  |
| 3.  | Modulator (Larsen)                    | 5 pages  |
| 4.  | Klystron (Larsen)                     | 5 pages  |
| 5.  | Power distribution (Larsen)           | 5 pages  |
| 6.  | Cavities (Mammosser)                  | 10 pages |
| 7.  | Cryomodules (Ohuchi)                  | 10 pages |
| 8.  | LLRF (Simrock)                        | 5 pages  |
| 9.  | Instrumentation (Burrows)             | 10 pages |
| 10. | Dumps and Collimators (Markiewicz)    | 5 pages  |
| 11. | Control & Timing Systems (Carwardine) | 15 pages |



# Draft Outline (3)

## IV) Conventional facilities

1. Introduction
2. Site layout
3. Tunnel layout
4. AC Power distribution
5. Cooling water and Air conditioning
6. Cryogenics (Peterson)
7. Safety systems
8. Construction plan and installation

## V) Sample Sites

1. Americas (Kuchler)
2. Asia (Enomoto)
3. Europe - Germany (Baldy)
4. Europe - Switzerland (Baldy)



# Draft Outline (4)

## VI) Cost

1. Introduction - Methods and Assumptions
2. Overview
3. Accelerator
4. Conventional Facilities
5. Construction Cost Summary
6. Operating Costs

## VII) TDR R&D Plan



# Accelerator Design Section

System description - high level requirements

Layout schematic

Key Parameter table

Subsystem descriptions

include graphics or tables as needed

mention any interesting technical components

Subsystem 1

Subsystem 2

etc.

Table summarizing components

magnets, diagnostics, rf, etc.



# Technical Section

High level description of components

Major classes considered, issues, how evaluated

Example: Magnets

4 classes - warm, SC, kickers, specialty (e.g. FDs)

issues - magnet reliability, redundant PS,

location in CM, size constraints

how issues were addressed in design

approach used to develop costs (later??)

not a catalog of magnet designs but a discussion of  
issues and solutions





# CFS, Sites, Costs

## CFS

High level description of design

Leave technical details for ILC notes, wiki

## Sites

Description of site, unique features, constraints

## Costs

Description of approach, assumptions, guidelines

Technical system approaches



# Schedule

Rough 1<sup>st</sup> Draft

KEK MAC, Sept 20

Detailed outline of section

incl. topics to be covered in description, subsystems, design

List of any graphics requiring pubs help

Further drafts

October

Text submitted to editors, graphics developed

Complete Draft

Valencia, Nov 6

Text should have been passed by editors, nearly final  
graphics and tables

Also input to TDR R&D plans Chapter



# Final Comments

RDR is a high level description of the accelerator,  
CFS, sites and costs

Detailed technical information should be published  
separately in ILC Technical Reports

BCD must be updated to reflect changes adopted for  
the RDR

More on this in next talk

Nobu Toge (KEK) and Nick Walker (DESY) have  
agreed to be co-editors on the RDR