Comments on 21st Century Strategic Plan

OVERVIEW:

From a patent searcher's viewpoint, four critical flaws in the plan are:

FLAW 1:

There simply aren't enough qualified public patent searchers to perform the searching for 3,400 patent Examiners. Additionally, many USPTO Examiners have developed technical expertise which *cannot* be matched by public sector searchers.

FLAW 2:

The plan is contradictory as to the timing of the ESS ISSR search. P-07-01 indicates that the ISSR search is to be conducted based on a "technical search abstract" (specifically written by the applicant for guiding the search e.g. *before the claims are drafted*) and discussions with the applicant. This seems to be the logical (and only workable) timing from a patent applicant's point of view (since it is impossible to correctly draft a claim without having a good knowledge beforehand of what the relevant prior art is.) However, P-01 indicates that the "ISSR must identify on a claim-by-claim basis the most relevant X and Y references". In this initiative, therefore, it is clear that the ISSR search must be conducted *after the attorney has written all his claims*. Which leaves the question- will applicants be required (by necessity) to have *two* searches performed (one before the attorney writes the claims to assist in drafting the claims around the prior art, and then one after the attorney writes the claims to analyze and apply the references in "X" and "Y" fashion)?

FLAW 3:

At a time when both the JPO and the EPO have moved away from the International Patent Classification (IPC) because it is unwieldy and unworkable (the subclasses are too large), it is ludicrous for the USPTO to be thinking that the IPC will solve their classification dilemma in such a manner that the Examiners won't have to classify or reclassify.

FLAW 4:

Classification and reclassification require a high level of patent and technical expertise. Examiners are best suited to perform this function and it should not be contracted out.

SECTION-BY-SECTION EXPOSITION:

Section P-26

The current Electronic Filing System (EFS) is a failure. As of March 1, 2002, a total of 3,548 patent applications were filed electronically between October 2000 and February 2002 (source: www.burdlaw.com). This represents less than one percent of all patent application filings.

The main reason why nobody uses EFS is that it was ill conceived and it doesn't work properly for anything more than simple text patent applications.

Money and resources were wasted on EFS and the USPTO rightly plans to scrap it. However, the public's needs should be considered before a replacement program is embraced. There are simpler and more efficient solutions than coat-tailing on the EPO's "image" capture solution. Universities world-wide use PostScript, open source *Ghostscript*, or PDF for their publications because these formats easily handle technical and complex text and graphics. Print-to-file conversion programs (so-called "virtual printers") already exist which can convert print output from *any word processing or drawing application*, such as MS-Word or WordPerfect, into these formats with one mouse click. Why would the USPTO want to use image capture which will increase internal and external network bandwidth needs by perhaps two orders of magnitude? The USPTO computer networks are already strained beyond capacity during peak loads.

Section P-27

Classification of a patent application requires an in-depth knowledge both of the classification schedule and of the relevant technology. Assistant Examiners with less than three years experience are generally not delegated the duty of initial and PG-PUB classification because 1) they often haven't grasped the nuances of the classification schedule, and 2) they don't have a technical and "historical" knowledge of the art so as to know where particular technical features have been historically classified.

Additionally, experienced and primary Examiners who perform initial and PG-PUB classification are only charged with classifying applications in their one field of developed expertise. An Examiner working in "clutches" won't be asked to classify a thermal fuse.

By contracting out this function, you immediately remove expertise from the initial and PG-PUB classification process. Even the most experienced public practitioners (who understand classification) often consult with good primary Examiners to understand where a feature might be classified. Additionally, even the most knowledgeable public practitioners don't have an in-depth technical grasp of *all* technologies. For one person to develop a technical grasp of one technology takes years.

Section P-28

The Examiners who work day-in and day-out in a particular technology are the most qualified to perform the International Search. They understand the basic theories of the technology, and many of them understand how the technology has developed. A contractor would likely not have the depth of theoretical understanding and the historical knowledge of the art that comes from the "work experience" which many Examiners have accrued.

Section P-29

Reclassification requires a knowledge of technology trends, industrial focal points, and patenting activities. When "hot" technologies are reclassified by Examiners, the Examiners can make educated guesses as to how the technologies will develop based in part on their historical knowledge of where the art has come from and in part on cases which are pending before them. It would be nearly impossible for a contractor (who may be completely unfamiliar with the technology and have no experience searching patents) to understand so complex a dynamic as an emerging technology, and to understand how a reclassification process should be directed to facilitate future searching.

Additionally, in an era where both the JPO and EPO have moved away from the "International Classification System" (IPC) in favor of their own impressive reclassification projects, it is ludicrous to think that the USPTO would attempt to embrace IPC. In fact, the current U.S. classification system is better than the IPC in that 1) the average USPC subclass size is much smaller than the average IPC subclass size, and 2) the technology breakdowns in the USPC are more up-to-date.

In the beginning of 2000, the JPO began its move away from IPC because the subclass sizes had grown so large as to be unmanageable. The JPO introduced "F-Term" themes and facets. An F-Term theme is a technology area which may be equivalent to one or several IPCs, and facets are the sub-divisions of the theme. For example, the F-Term theme "5D033" for thin film magnetic heads is generally equivalent to the one IPC subclass G11B 5/31 (entitled "magnetic head using thin films"). That F-Term theme is broken down into more than seventy (70) facets! For example, if you want to find a thin film magnetic head mounted on a hard disk slider, you would look in 5D033BB14- it’s that simple!

To show the difference between the effectiveness of using the IPC and the effectiveness of using F-Terms, see the table below. If the USPTO adopts a classification system as crude as IPC, an Examiner or searcher would have to look through more than 7000 documents to perform a search of thin film magnetic heads on a slider. On the other hand, if the USPTO were to follow the JPO’s lead and adopt F-Terms or a similarly precise classification scheme (e.g. an updated form of USPC), the same search could be conducted by looking through a mere 1000 documents.

	Japanese "A" Patents in IPC G11B 5/31 (from 1976)	Japanese "A" Patents in F-Term 5D033BB14 (all years)	U.S. Patents in IPC G11B 5/31 (from 1974)	Hypothetical U.S. Patents in F-Term 5D033BB14
Raw Number of Documents to be Searched	**6292**	**872**	**937**	**[130]**
Percent Reduction	**--**	**86%**	**--**	**[86%]**

Additionally, the JPO has also adopted IPC-subdivisions (FI). In the case of Japanese subdivisions, the IPC G11B 5/31 noted above is further broken down into fourteen (14) subdivisions. These subdivisions have arisen because is commonly known that the IPC subclass sizes (with thousands of patents) are too large and are unworkable.

Japanese IPC Subdivisions (FI):

5/31 . . using thin film (5/33 takes precedence)[4][diagram]
A Structure or manufacture of the thin-film head device per se (magnetism-sensitive device e.g. provided with a magnetic resistance effect device K, Z)
C . Magnetic core (D takes precedence.)
D . Structure or manufacture of the magnetic head surface; gap
E . . Gap
F . Coil; coil insulation; terminal
G . Magnetic head board
H . Protection member
K Magnetic head having multiple gaps to erase, record, or replay the same track
L Magnetic head for multiple tracks
M Manufacture of the thin-film magnetic head not directly relating the structure of the magnetic head per se
N . Ground volume detection in manufacturing the magnetic head
P Thin-film magnetic head housing
Q Thin-film magnetic head shielding
Z Others

The EPO has also moved away from IPC in recent years and has adopted the "European Patent Classification" (EPC) and the "In Computer Only" (ICO) systems. The EPC is similar to the Japanese subdivisions and is reproduced below for G11B 5/31. The ICO is similar to but somewhat more detailed than the EPC and is used by EPO Examiners to track fast changing technologies:

European EPC:

G11B5/31 · · using thin films [N: (G11B5/127C, G11B5/127P, G11B5/187A2C, G11B5/187C, G11B5/33, G11B5/49 take precedence; magnetic thin film structures H01F10/00)]

G11B5/31B · · · [N: Structure or manufacture of integrated heads or heads mechanically assembled and electrically connected to a support or housing]

G11B5/31B1 · · · · [N: where the integrated or assembled structure comprises means for conditioning against physical detrimental influence, e.g. wear, contamination (G11B5/31D8A takes precedence)]

G11B5/31D · · · [N: Details (G11B5/31B takes precedence)]

G11B5/31D2 · · · · [N: for improving the magnetic domain structure or avoiding the formation or displacement of undesirable magnetic domains]

G11B5/31D4 · · · · [N: Shaping of layers, poles or gaps for improving the form of the electrical signal transduced, e.g. for shielding, contour effect, equalizing, side flux fringing, cross talk reduction between heads or between heads and information tracks (G11B5/31D2, G11B5/245 take precedence)]

G11B5/31D6 · · · · [N: for reducing flux leakage between the electrical coil layers and the magnetic cores or poles or between the magnetic cores or poles]

G11B5/31D6C · · · · · [N: by using special coil configurations or conductors]

G11B5/31D6C2 · · · · · · [N: using superconductors]

G11B5/31D8 · · · · [N: Disposition of layers]

G11B5/31D8A · · · · · [N: including layers not usually being a part of the electromagnetic transducer structure and providing additional features, e.g. for improving heat radiation, reduction of power dissipation, adaptations for measurement or indication of gap depth or other properties of the structure (G11B5/31B1 takes precedence)]

G11B5/31D8A2 · · · · · · [N: where the layers are extra layers normally not provided in the transducing structure, e.g. optical layers (G11B5/31T2F takes precedence)]

G11B5/31D8T · · · · · [N: including additional layers for improving the electromagnetic transducing properties of the basic structure, e.g. for flux coupling, guiding or shielding (G11B5/31D4, G11B5/31D6 take precedence)]

G11B5/31D8T3 · · · · · · [N: magnetic layers]

G11B5/31D8T3C · · · · · · · [N: including at least one magnetic thin film coupled by interfacing to the basic magnetic thin film structure]

G11B5/31D8T3C2 · · · · · · · · [N: providing interaction by induced or exchange coupling]

G11B5/31D8T4 · · · · · · [N: supraconductive layers]

G11B5/31M · · · [N: Fabrication methods or processes specially adapted for a particular head structure, e.g. using base layers for electroplating, using functional layers for masking, using energy or particle beams for shaping the structure or modifying the properties of the basic layers]

G11B5/31M2 · · · · [N: Testing or indicating in relation thereto, e.g. before the fabrication is completed]

G11B5/31P · · · [N: Structure of heads comprising at least in the transducing gap regions two magnetic thin films disposed respectively at both sides of the gaps (G11B5/245C2, G11B5/265 take precedence; composite magnetic head structures, e.g. "Metal-In-Gap" heads are classified in G11B5/127 or G11B5/187 and subgroups)]

G11B5/31P2 · · · · [N: the films being mainly disposed in parallel planes]

G11B5/31P2H · · · · · [N: intersecting the gap plane, e.g. "horizontal head structure"]

G11B5/31P2V · · · · · [N: parallel to the gap plane, e.g. "vertical head structure"]

G11B5/31T · · · [N: Testing]

G11B5/31T2 · · · · [N: of films or layers, e.g. continuity test]

G11B5/31T2F · · · · · [N: of thin magnetic films, e.g. functional testing of the transducing properties (G11B5/455 takes precedence)]

It is apparent then that a transition to IPC for classification of U.S. Patents would create an unmanageable and an unworkable environment for searching U.S. Patents. Unbearably large subclasses would be created which would preclude effective and thorough searching. While it is understood that "key word" searching can be an effective tool for finding some patents, there are still too many instances in the mechanical and electrical arts especially where key word searching cannot substitute for a comprehensive search of classified technology.

Section P-36

The several Patent Offices should certainly share search results. However, the USPTO cannot *rely* on a search from Europe or Japan because such a search 1) would likely be regionally skewed in terms of prior art coverage and would not cover U.S. Patents as thoroughly as a search done in the U.S., and 2) would not take into account divergent aspects of U.S. law such as 35 U.S.C. 102(e). Additionally, the JPO or EPO may find a perfect "X" reference against a counterpart application and terminate the search accordingly when other relevant art could be found, only to have the "X" reference sworn behind in the U.S. because it was not published more than one year before the U.S. filing date. That is, no other jurisdiction considers the grace period established by 35 U.S.C. 102(b) during their search.

Section P-07-01

To require the ESS to search "what is claimed or what is reasonably expected to be claimed" from a technical search abstract and a conversation with an attorney (before the claims are written) places an impossible burden on the ESS if the attorney does his/her job well. Specifically, once the attorney receives the P.C.T. style report (ISSR), he should draft claims

directed toward the features of the invention *not shown* in the search report to thereby distinguish over the prior art. This is Patent Law 101! If the attorney then writes five pages of formal claims and the technical search abstract was only a single page long, it stands to reason that the good attorney has included more and different features in the claims than were in the abstract. Therefore, for an ESS to be in compliance with this requirement would necessarily require a second search after the claims are formally written and before filing. This will slow down the patenting process for the applicant, though this delay might not show up on the USPTO's 18-month clock.

This is just another example of the USPTO wanting more (whether it be fees or services) from the applicants and wanting to do less!

Section P-09

The statement "[a]pplicants are generally in the best position to identify the most pertinent prior art related to their invention(s)" is without factual support or merit. The USPTO is presuming the conclusion it wants to reach!

In actuality, the USPTO is in a much better position to search U.S. and foreign *patents* than the great majority of applicants! To be sure, inventors may have more knowledge of non-patent literature, but the USPTO should not use this as an excuse to push the burden of the *patent* search over to the applicant. Unfortunately, the USPTO seems to be trying to abdicate from its Constitutional responsibilities. The truth of the matter is, however, that the USPTO must do its reasonable share in maintaining the patent system.

Couched within this initiative, we also see that the USPTO actually wants to go a step farther than just having the applicants perform their own patent searches. Currently, a large percentage of patent applicants have their pre-filing searches conducted by contractors who use the USPTO's EAST and WEST system. These systems are hard wired into the USPTO servers so the retrieval of images is much faster than can be achieved over the Internet, and searches can therefore be performed more efficiently. Once the USPTO has shifted the burden of the patent search to the applicants, its desire is to "shift the funds for maintaining and improving the automated search systems [to] other uses such as staffing, training, etc." That means they would want to stop maintaining EAST and WEST, and leave patent applicants without any efficient non-commercial source for patent information retrieval.

The USPTO has an obligation to disseminate patent information. One has to ask: when will the USPTO leadership stop demonstrating a desire to abdicate the agency's Constitutional responsibility and start trying to better carry out its obligatory function?

Section P-13/58

Speaking of disregard for the Constitution, I can't help but wonder whether our founding fathers would have considered a corporation or a multi-national conglomerate an "inventor" for the purposes of Article I Section 8.

As required by the Constitution, our patent system has always rewarded the *inventors* of useful arts with the exclusive rights to their discoveries. To be sure, these rights may be assigned, but I doubt we would be doing the Constitution justice if we awarded them directly to companies rather than to individuals.

Section P-58

Comments are same as for P-13/58

Section P-01

TRACK 1: Here we are told that the "ISSR [search report from the ESS] must identify on a claim-by-claim basis the most relevant X and Y references and explain the relevant section of references." But in P-07-01, the ISSR is created not from the claims, but from a "technical search abstract" and discussions with the applicant. The ESS will likely never see the claims, because the good attorney will wait to see the prior art before drafting the claims!

TRACK 3: The other IP Offices do not consider central issues to U.S. Patent Law such as 35 U.S.C. 102(e) references and the non-requirement of "strict novelty" in the U.S. as afforded by 35 U.S.C. 102(b). As such, the other IP Offices will be applying some "X" references which are not references at all in the U.S., and they will not be applying some references that could be "X" references in the U.S. This non-congruence of what does and does not constitute "prior art" is certain to create a legal quagmire.

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