IPAA International Activity Survey
Summary of Results
February 2008
INTRODUCTION

Since 1992, IPAA has canvassed the membership’s interest in international E&P activity as part of the Profile of Independent Producers. The chart below shows the results of these surveys over that time.

Historically:
- The most commonly identified areas of activity or interest were Central/South America and Canada,
- Onshore E&P and production enhancements constituted the most popular projects, and
- Public companies generally are more active internationally than private companies.
- Capital outlays and political uncertainties were consistently considered the biggest hindrances.
- There seems to be a rough correlation between international interest and oil price.

In 2005, the International Committee conducted a more detailed survey, expanding upon earlier data and providing more details on corporate strategy and operational tactics. Out of the 224 respondents, 21% were involved in international ventures.

Several primary themes have emerged over the past decade regarding independents’ level of interest in international operations.
- First, the international arena is a niche area where U.S. independents can risk a relatively small percentage of their exploration budgets for large potential reserve payoffs.
• Second, geographic proximity and political risk are key factors in decision-making, especially given the rise of trends such as ‘resource nationalism’ and increased international competition by the national oil companies (NOCs).

The survey itself seems to suggest that understanding the marketplace and project risk profile are critical.

• Third, international interest has roughly correlated with commodity price trends based on IPAA survey research over the past decade.

From the survey, it appears that growth in existing markets is preferred and oil is the primary focus.

This report summarizes the results of the 2005 survey and has been updated with comments from industry experts regarding recent trends of interest to independents.

International?
Domestic?
Or Both?
That is the Question

Before reviewing the rationale for independents to pursue international ventures, it is instructive to examine why the majority of respondents choose to remain focused on domestic E&P activities.

In addition to the above-mentioned responses, it is worth noting three additional reasons based on time horizons and political risk:

• foreign government’s laws and institutions cannot be trusted;
• establishing a successful foreign venture will take far too long to be of commercial interest; and
• security risks and political uncertainties (each at 13.3%)
Equally important for younger generation professionals is the changing attitude for career development. Job mobility is more commonly seen as a path to advancement compared to their predecessors. Many of these households are comprised of dual-working professionals, so job rotation and placement becomes a much more difficult task for companies. The current relative value of the U.S. dollar and the impact this has in some areas abroad is another factor in this trend.

Regarding the above chart, two additional reasons bear mention:

- reluctance to embark upon a venture in a country where the customs, language, fiscal and legal entities are not familiar and
- seeking the right experienced partner to help make the transition into the international arena (both at 13.3%).

As the chart below shows, over 80% of companies surveyed have been involved over five years and 60% have been involved internationally for over ten years.

This reflects both the longer lead time required to bring international projects to production and the increasing comfort level that comes with corporate experience in overseas ventures.
**Trends:** The strong correlation between production and its discovery is clear. IPAA members have used two strategies — one of lower risk, wherein they acquire production first to fund future exploration and growth; and one of higher risk-pure exploration.

Please note: multiple responses were permitted therefore percentages do not total 100%.

**Trends:** The focus on oil continues to make sense. Gas markets in many regions are less attractive than North America and bring significant additional challenges.

**Size of smallest target that would interest respondents in an international exploration play (MMBOE)**
**TRENDS:** The interest in prospects of less than 50 MMboe is a key niche for IPAA members. This message is consistent for both exploration and acquisition.

Most major companies aren’t interested in new ventures without potential of at least 50 MMboe net. Note however that these frontier wildcat opportunities are high risk. Only 5% of 250 MMboe prospects drilled over the past three years have actually achieved that objective.

**TRENDS:** The “steps for entry” of independents in international ventures is not an area of unmanageable complexity. Independents may consider a direct application/bid round, either alone or in a joint venture, or a farm-in. The appropriate route should be determined by a careful review of its resources and objectives. It is probably easier for an independent to take initial steps via an acquisition or a farm-in, becoming a party to host government agreements, gaining access to technical data, becoming a member of operating committees under joint venture agreements and gaining valuable experience in international ventures. In the direct application/bid round route, either alone or in a joint venture, the Independent must be aware of sev-
eral types of agreements available with host governments such as the production sharing contract (PSC), the Royalty/Tax Agreement or the Service Agreement. The fiscal and legal terms in each type of agreement must be analyzed to judge its suitability.

The situation is evolving over time. Over 20 countries have increased their government’s share of production and revenue over the past three years. The state take for eight countries (Trinidad & Tobago, Venezuela, Angola, Russia, Algeria, Libya, Kazakhstan and Nigeria) increased to 85% — 96%. Several countries have nationalized their petroleum sectors.

TRENDS: IPAA members’ strength in terms of subsurface knowledge and local relationships are two of the key prerequisites for success internationally, particularly for exploration led strategies. Knowledge of international contracts and local market factors are also important requirements.
A successful growth strategy is becoming a partner of choice with host governments. If a company knows its market, honors its commitments and is culturally sensitive, it stands a much better chance of building a successful business. Operating internationally requires a different approach than the home market. Companies that recognize this and factor in local content appropriately in their program will have greater probability of success. A critical element is this regard is to hire, train and develop a national workforce that can be integrated with expatriate employees.

The recent emergence of ‘infrastructure enablers’ — companies that offer to build power stations, rail lines and roads in conjunction with oil and gas licenses — points to the fact that international players need to evolve in order to maintain their relationships with host countries.

TRENDS: Companies that go overseas need larger targets in order to justify the higher cost of doing business. As in 2005, independents continue to be concerned about ease of doing business, foreign exchange issues, marketing or monetization issues, force majeure triggers and likelihood of force majeure, and security. Focus on fiscal terms also is crucial. Volume based metrics, such as finding costs, often show weak correlation with project returns because of variation between different fiscal regimes.

Political risk is another serious consideration in today’s petroleum world, although it should not be overly exaggerated as a major deterrent to international exploration by independents. Political risk, as with geological and other risks, may be
lessened by careful analysis, including taking steps to diversify international exploration portfolios.

**Regions Favored By Independents**

In recent years access to international resources has tightened and fiscal terms, political risks, and competition have increased. These factors cut margins for international oil companies with resulting retrenchment of portfolios and reduction in exploration spending by many large independents. This implies that the number of favorable countries for international E&P investments has decreased. Small independents, however, are making inroads as they tap smaller reserves, capture licenses in frontier areas and take advantage of a few countries with mature and declining production that still offer incentives to invest. Many successful international independents have repeated this cycle from start-up to divestiture. Experienced international professionals have left majors to form start-up ventures and many have acquired shares of producing properties to establish cash flow while they develop exploration prospects. Certainly the increased competition by NOCs and non-U.S. independents and majors has played a role in regard to the number of new entrants.

**Trends:** There seems to be a certain degree of hemispheric focus with U.S. independents, whether north into Canada or south into Latin America. The interest in South America is not surprising given its proximity to the U.S. and the prevalence of onshore and marginal plays. Independents are focused on Colombia, Argentina and Peru where opportunities are medium-sized, acreage turnover is good and fiscal terms are appropriate for the opportunity set. European independents increasingly favor opportunities in Africa and NW Europe. Eastern Europe also makes sense given the suite of mature plays onshore. Both these regions are currently under the radar of the majors who are more interested in the deep-water plays of the Gulf of Mexico and offshore West Africa.

This geographic disposition presents opportunities for small E&P players interested in capitalizing on current market conditions. Many traditional plays are mature and therefore independents are moving in behind the

<table>
<thead>
<tr>
<th>Regions considered for future involvement?</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>South America</td>
<td>47.8%</td>
</tr>
<tr>
<td>Southeast Asia (including Australia)</td>
<td>39.1%</td>
</tr>
<tr>
<td>Western Europe</td>
<td>39.1%</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>34.8%</td>
</tr>
<tr>
<td>Africa</td>
<td>34.8%</td>
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<tr>
<td>Central America</td>
<td>34.8%</td>
</tr>
<tr>
<td>Middle East</td>
<td>26.1%</td>
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<tr>
<td>Former Soviet Union</td>
<td>26.1%</td>
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<tr>
<td>China</td>
<td>21.7%</td>
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<tr>
<td>Asian Rim</td>
<td>8.7%</td>
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exiting majors. There also is interest in unconventional resource plays such as basin-centered gas, coal bed methane and fractured carbonates.

The key consideration for companies is to focus on the countries and plays that fit their corporate strengths and stay away from those where they have no competitive advantages.

**Conclusion—The Playing Field Ahead**

The international playing field for independents is constantly evolving. Increased government take and increasing competition for opportunities are among the factors making conditions more challenging on the whole. Observations on some of these dynamics are presented below.

**Oil vs Gas** — The increase in demand for natural gas will outpace growth in the demand for crude oil. This will be driven by the need to replace declining production in major gas consuming areas (Europe & North America), increasing environmental concerns about carbon emissions, the current disconnect between oil and gas on an energy equivalent basis and construction of LNG receiving terminals in key markets.

**The Rise Of The Noc’s** — The role of National Oil Companies has moved from one of shepherd of their countries resources to one of international competitor. The relationship of the NOC’s and major International Oil companies has evolved as well. These changes result from concerns about national energy security, developing internal capabilities and the willingness to export these competencies, increased financial resources to pursue international ventures and the desire to attract new entrants to maturing indigenous producing basins.

**Changing Fiscal Terms** — Increasing government take through higher taxes, modified fiscal terms or increased government participation are a fact of life in the current high price environment. Some of this impact is offset however with fiscal incentives for development of unconventional resources and for frontier exploration. An important test of project economics under these new terms is the viability in a lower price environment.

**Other Issues** — not specifically addressed in this Survey such as social responsibility, sustainable development and carbon footprint (gas flaring / emissions) are becoming more relevant in today’s E&P business.

Tomorrow’s successful independents operating overseas will be the companies that recognize these forces, maintain flexibility and adapt their programs to address the realities of the new world order.
IPAA would like to thank Dr. Alfred J. Boulos, Phillip H. “Pete” Stark Ph.D & Robert Fryklund of IHS, Tim McShane of Wood Mackenzie, Thorleif Egeli of Schlumberger, John Horgan of Halliburton, Jack Weyler and the members of the IPAA International Steering Committee for their contributions to the International Survey brochure. IPAA anticipates that this survey will be conducted every two years as the international activity level of independents continues to evolve.

This survey will help the Committee on its mission to “be the focal point of the opportunity between independents and international exploration and production ventures and to provide educational and information services to IPAA members engaged in or interested in international business opportunities.” If you have suggestions on how IPAA can improve its services to membership on international issues, please feel free to contact us.

To view the International Committee web page, go to http://www.ipaa.org/issues/international/default.asp

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