Gnoss Field: Yeah, But It’s Our Airport

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SUMMARY

Marin County Airport, better known as Gnoss Field,\(^2\) continues to serve the County against all odds. The runway is too low and too short and points in the wrong direction. The facilities are dated and there is not even a sewer line. Yet, as the Grand Jury has discovered, the airport is beloved by many users; it angers some of its neighbors; and, ultimately, Marin County could not get rid of Gnoss Field if it wanted to. A small proportion of the population of Marin uses the airport. It provides those users with the advantage of convenience, the ability for some businesses to handle travel needs, and a lot of fun for those who enjoy the world of flying. The Grand Jury suggests that you visit your airport. Some Saturday or Sunday, load up the family and drive out to Gnoss Field to watch a few takeoffs and landings.

The Marin County Department of Public Works manages the airport under the direction of the Marin County Board of Supervisors. An Aviation Commission makes recommendations to the Supervisors regarding any proposed changes to airport operations.

This Grand Jury study of the management and operations at the Marin County Airport leads us to conclude that the airport is, given available resources, well managed for a

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\(^1\) From Gnoss Field Airport, Proposed Extension of Runway 13/31, Final Environmental Impact Report
\(^2\) Gnoss is named for William Gnoss and “the name is pronounced as Guh-noss.”

May 23, 2014 Marin County Civil Grand Jury
general aviation airport of its size. The staff is friendly and knowledgeable and was extremely gracious during our review. The manager is experienced and enthusiastic and clearly sees his role as being supportive of aviation in Marin. The Grand Jury members who had the chance to interact with the airport staff were impressed, and we feel that Marin County is fortunate to have them as employees. The airport’s physical condition is adequate, if a little threadbare.

There are, however, some issues that need to be addressed. The airport has existed much as it is for many years, and it seems that no one has questioned assumptions about its usefulness. While our study convinced us that the airport certainly serves a portion of Marin’s citizens, whether it serves many vital functions is questionable. We note that the latest prior Grand Jury review of the airport was 16 years ago in 1997 and the report before that had been 16 years earlier in 1981. In reading the 1997 report, we found that some of the concerns then are still valid today. The 1997 report stated, in reference to cost-benefit issues, “Clearly, the Gnoss Field operations have proven to be primarily for the convenience and benefit of so few (less than 1/10 of 1% of the Marin population) whose needs in this regards can hardly be considered an overwhelming public necessity or overriding consideration.” This is still true today.

Almost everyone we spoke to used essentially the same wording in telling us that the airport produces revenue, provides emergency support, supports life-saving flights, and would provide transportation or evacuation in the case of a countywide disaster. In fact, most of these long-held assumptions are, at best, marginally true. The airport is barely self-sufficient, even with ongoing federal aid. There are relatively few medical flights into or out of Gnoss. However, volunteer pilots at Gnoss provide non-urgent flights, at no cost, for people in need. In a large-scale emergency there is no assurance the airport would remain operative. In 1997, the Grand Jury considered the option of closing the airport, as other uses, such as returning the site to farmland, would have provided income to the County. We see no reason to close Gnoss. In fact, there is no option but to keep the airport. The Federal Aviation Administration (FAA) has spent millions of dollars supporting the airport, and the County for its part is obligated to keep it in place.

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3 Marin County Airport (Gnoss Field) Report, Marin County Civil Grand Jury, 1997, p. 64.
There are security and safety issues, and one financial problem, which concern us:

- The airport would be safer with increased staffing, including 7 day per week, 24 hour a day coverage.
- We suggest improving fencing and the video surveillance system in order to improve security at Gnoss. We recommend several improvements to increase safety and to speed the arrival of first responders.
- We recognize that there is potential to use the airport in times of disaster, but failed to find any evidence that the airport is, in fact, included in the County’s Emergency Plans. Because of its location, we also have concerns about the airport’s usefulness in case of some specific emergencies, such as earthquake, tsunami or flooding.\(^4\)\(^5\)
- We note that the airport’s runway will likely need to be repaired or resurfaced earlier than the proposed 2018 date of the runway extension as it is currently planned.
- County staff does not have access to individual hangars; consequently, we question whether the County is accurately counting aircraft based at Gnoss to insure that all property taxes are collected.

In the interest of safety, there is a current proposal for an improved Automated Observing Weather System (AWOS)\(^6\) to report weather and ground conditions accurately to pilots prior to their approach and landing at the airport. The Grand Jury vigorously supports this proposal.

The Grand Jury is also aware of an on-going concern by local citizens about noise created by low-flying aircraft. While we acknowledge their complaints and sympathize with these citizens, we found that the airport manager has taken an active role in attempting to alleviate the problem. We note that the FAA does not allow local government to restrict airspace or mandate flight paths.

During its review, the Grand Jury took great interest in a proposed 1100-foot extension of the runway, but it is not taking a formal position for or against the plan.

\(^4\) Draft Emergency Operations Plan, Marin County Sheriff’s Office of Emergency Services, December 2013 
BACKGROUND

For more than 40 years, Marin County has been operating an airport, Gnoss Field, on what is now a 120-acre site just north of Novato. A private family built the airport in 1939 in anticipation of a large number of medical flights and air-to-ground ambulance transfers by pilots looking for business opportunities and for recreational flying. At first, the runway was a grass field, which was typical of general aviation airports at the time. Marin County acquired the property in 1965 and subsequently moved the runway to its present location. The airport is named for William Gnoss, a County supervisor who led the effort to fund improvements to the airport.7

There is some disagreement about how the present siting of the runway was determined. In its present configuration, crosswinds buffet the runway. These winds increase in speed as they flow across Mt. Burdell towards Gnoss. This is a more dangerous approach than at most general aviation airports, and there have been numerous incidents of planes pushed from the runway by the crosswinds.

Military and civilian flight schools routinely use Gnoss Field to train new pilots in takeoffs and landings on a crosswind runway. This increases, in a perverse way, its continued usefulness, but it also underscores the field’s inherent danger. Because of the

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crosswinds, the runway has been widened several times to its present 75 feet. In the late 1990s, there were proposals to widen the 3300-foot runway still more to 90 feet.

Gnoss Field became the County airport almost by default. It is unlikely that if the airport were being built today, it would be sited at the Gnoss location. However, there are very few other options available to the County. For example, proposals to turn Hamilton Field, a former Air Force base, into a major airport were quashed in the late nineteen eighties and early nineties, in order to restore the area’s wetlands. The airport is poorly located and the runway points in an undesirable direction. Gnoss Field sits at between 3 and 5 feet above sea level, surrounded by farmland and wetlands. A series of aging ditches, levees and pumps are all that keep the airport from flooding during high tides or heavy rain.

Gnoss Field is open 24 hours a day, seven days a week, and has a capacity to house 310 aircraft, ranging from small single engine planes to corporate jets. There are 81 permanent tie-downs (outside parking places), 147 T-hangars (small hangars which are towed to the site) and 37 conventional hangars, which produce modest returns to the airport. As of late January 2014, the occupancy rate for the County-owned hangars was 94 percent. Tie-downs are at a 21 percent occupancy rate. Several persons or businesses lease more than one hangar and sublet them.

The Federal Aviation Administration classifies the airport as general aviation, which means it can only serve non-scheduled personal and private flying and precludes accommodation of aircraft owned by commercial airlines. Pursuant to that limitation, Gnoss Field offers services for local aviation, flight training, charter operations, airplane and helicopter medical flights and air-to-ground ambulance transfers. It is classified as a “reliever” airport, meaning that relatively small planes can safely land there rather than tying up airspace at larger airports such as Oakland or San Francisco.

There are reported to be 86,000 operations (each a takeoff or landing) a year. The airport’s sole runway, at 3,300 feet long, is too short to permit a takeoff for some aircraft with a full load of either fuel or passengers. The Grand Jury found that there were 17 medical helicopter flights into and out of Gnoss in 2013. Sources at Marin General Hospital told us that there had been some medical flights but that they are rare.

There is a second airport in Marin. Known as the San Rafael Airport, it is privately owned. There are approximately 100 aircraft stored at San Rafael. It has a 3,000-foot runway that is 48 feet wide.

**APPROACH**

The Grand Jury began the review of Gnoss Field operations in the late fall of 2013. We researched numerous articles about general aviation in the United States, advisories from

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the FAA, and Marin County documentation regarding the airport. Members of the Grand Jury made seven trips to view Gnoss Field. We conducted 12 separate interviews. Interviewees included administrative staff from the Marin County Department of Public Works (DPW), as well as operational staff at Gnoss Field. We interviewed airport users, including several involved in the Marin County Aviation Commission and the Gnoss Field Community Association. We spoke to managerial staff at an airport in the North Bay similar to Gnoss Field in size and number of aircraft. We also interviewed a member of the Marin County Board of Supervisors. We attended meetings of the Aviation Commission and the Marin County Board of Supervisors. We also attended a DPW briefing on the operation of the airport provided to the Marin County Board of Supervisors.

**DISCUSSION**

**Governance**

The Marin County Board of Supervisors is responsible for Gnoss Field. Staff from the Marin County Department of Public Works manages the airport. An Aviation Commission is charged with making recommendations to the Supervisors regarding any proposed changes to airport operations. According to the County website, the Aviation Commission is scheduled to meet bi-monthly. We note that several meetings have been cancelled over the past few years. Minutes have been kept for some meetings and not for others. We were told that the Commission, in practice, does not speak directly to the Board of Supervisors but passes recommendations through DPW staff. An Airport Land Use Commission, part of the County Planning Commission, meets when necessary to discuss relevant land use issues as they arise. We noted that in an interview one senior Marin County official believed that the Commission had become defunct.

The Airport Master Plan was written in 1989 and revised in 1997. The authors of the plan assumed that general aviation would become increasingly popular. In addition, the plan assumed that the privately held San Rafael Airport would close. Because of these assumptions, the plan envisioned a growth in airport usage to 206,000 operations per year by 2006 and over 500 aircraft based at Gnoss. These projections proved to be wildly optimistic. San Rafael Airport continued in operation. General aviation nationwide never grew at the rate that was expected in the late 1980’s and early 1990’s. The 1997 revision called for expansion of the airport, extension of the runway, and the purchase of approximately 50 acres of land around the airport.

The County did not implement the plan, although the landing strip extension will be considered for approval, possibly in the summer of 2014. The Grand Jury understands that this would now involve a purchase of a small parcel of land north of the current airport boundary and some wetlands mitigation credits would need to be arranged.\(^9\) At the February 11, 2014, meeting of the Marin County Board of Supervisors, the supervisor for

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\(^9\) Wetland mitigation is a wetland enhancement, restoration, creation and/or preservation project that serves to offset unavoidable wetland impacts. “What is mitigation?” *Ducks Unlimited*, [http://www.ducks.org/conservation/glaro/what-is-mitigation](http://www.ducks.org/conservation/glaro/what-is-mitigation)
District 5 (where Gnoss Field is located) suggested that a new Master Plan was needed. The Grand Jury had previously spoken with several DPW staff members who opposed production of a new Master Plan, stating that it would be prohibitively expensive.

**Staffing**

Gnoss Field has just one full-time employee—the airport manager—who is on duty five days a week. There are two part-time employees. One is a weekend-only employee who acts as manager. The other works about four hours a week helping the airport manager with insurance and other business matters. The staff handles an amazing array of duties. They maintain listings of renters, account for insurance matters, and deal with the day-to-day concerns of the renters, including the small business owners.

The staff needs to be knowledgeable about aircraft navigation and safety. The managers inspect the runway and other areas and keep the Automated Weather Observing System (AWOS) and messages up to date. They are also the primary contacts with the FAA, especially in cases where the airport needs to be closed for safety reasons. In addition, every morning they place bills on planes for overnight stays, provide some basic building maintenance, and are responsible for physically mowing the grass that grows up around the runway and taxiways. The Grand Jury noticed that the staff at the airport appears to operate independently. A continuing refrain when we talked to other County staff was “check with the [current manager].” Whether regarding daily operations, leases, finances or safety issues, we were uniformly directed back to the weekday manager.

**Finances**

Understanding the financial reality for Gnoss Field is difficult. Financial accounting at Gnoss is segregated into a so-called enterprise fund. This is common for county-owned airports.\(^{10}\) The principle is that revenue and expenses from and for the airport are kept separate from the County General Fund. The enterprise fund is designed to allow a single-use entity such as Gnoss to operate on monies that it produces. In the Marin County Audited Budget Reports, this is referred to as a “business type” part of County government. Other County-maintained enterprise funds are held for the golf course, the Marin Center Theaters and the County Fair.

The majority of income for the airport is derived from three sources. The largest is from hangar and tie-down rentals (see below for discussion of lease types). The County shows 226 leases billed per month. Of these, by our count, there are 213 hangars or tie-down spaces and 13 other rentals to businesses. The aggregate monthly income for rentals is approximately $54,000. Secondly, each business at the airport is required to pay one percent of its gross receipts to the County in addition to its rental payment. The fuel provider, DVO Fuel, is paying the County $0.06 per gallon of fuel sold. Over the past three years, the County has averaged a yearly income of approximately $10,000 for fuel.

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sales. This represents approximately one percent of the price of fuel. Finally, the airport charges overnight fees ranging from $10 to $20 per night. The airport managers walk through the overnight tie-downs each morning and place a payment envelope on each plane.

Gnoss Field appears to meet the goal of revenue neutrality, meaning that no funds are taken from the County General Fund. It was difficult to analyze. We reviewed financial information from the County that covered three fiscal years ending June 30, 2011, 2012, and 2013. Net operating income for the three fiscal years was approximately $40,000, ($18,000), and $45,000. When there is a surplus, it is placed in an airport reserve fund. When there is a deficit, like the one that occurred in fiscal year 2012, funds from the reserve are used to cover the deficit. The airport’s revenue also includes a FAA grant of $150,000 per year. Projections for the next few years show increased “profit” to the fund because the leases at the airport will expire and be updated to market conditions. That will provide more revenue, which in turn is projected to increase airport reserves for capital improvements. We report the above numbers as approximate because each year’s financial report had somewhat different revenue and expense categories. Consequently, this provides an overall look at Gnoss Field rather than a detailed financial analysis.

Expenses paid from the enterprise fund include professional services provided by the airport staff, maintenance of the facility, and the normal expenses associated with any business, including phone service, supplies and so on. The airport enterprise fund also reimburses the County General Fund an aggregate amount to cover some County-provided services such as vehicle costs and insurance. We note that this amount has varied wildly over the past three years as reported to us. The chart below shows this difference:

<table>
<thead>
<tr>
<th></th>
<th>FY 10/11</th>
<th>FY 11/12</th>
<th>FY 12/13</th>
<th>Budgeted for 2014/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Costs</td>
<td>$277,316</td>
<td>$316,012</td>
<td>$247,129</td>
<td>185,531</td>
</tr>
<tr>
<td>Change over previous year</td>
<td>+14%</td>
<td>-22%</td>
<td>-25%</td>
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One airport user seriously questioned the financial underpinnings of these reimbursements and felt that the County is siphoning off airport income to increase the General Fund. According to FAA guidelines, all airport revenue is to be used to support the airport. The FAA compliance publication implementing 49 U.S.C. § 47133 states, in part: “Unlawful revenue diversion is the use of airport revenue for purposes other than the capital or operating costs of the airport, the local airport system, or other local facilities owned or operated by the airport owner or operator and directly and substantially related to the air transportation of passengers or property…. ”\textsuperscript{11}

\textsuperscript{11} “Appendix E, Policies and Procedures Concerning the Use of Airport Revenue,” \textit{Airport Compliance Manual}, Federal Aviation Administration, \url{http://www.faa.gov/airports/resources/publications/orders/compliance_5190_6/media/5190_6b_appE.pdf}
In addition to the above operating income, additional revenue comes to the County in the form of property taxes on the aircraft. Most aircraft are taxable. There are some exceptions, such as aircraft owned by commercial carriers. These taxes provide approximately $250,000 per year that stayed with the County and another $250,000 that was distributed to Novato schools. The question arises as to how complete and proper is the reporting by aircraft owners for the collection of property taxes.

The State Board of Equalization (BOE) conducted an audit for fiscal year 2011-2012 that reviewed the Marin County Assessor performance and reported that the Assessor's procedures for the discovery, valuation, and assessment of general aircraft conformed to statutory guidelines and procedures. The Marin County Assessor signed off on this report, and it was formally approved by the BOE in January 2014. The audit identified taxes paid on 214 aircraft, of which 158 were at Gnoss Field (56 were at San Rafael Airport). Dividing the $500,000 in taxes collected for planes at Gnoss Field shows that, on average, each plane produced about $3,200 in taxes.

One interviewee expressed some concern that owners are flying planes usually housed at Gnoss Field to other airports to avoid paying taxes to Marin County and that others may be flying aircraft into Gnoss Field to avoid paying taxes in other locales. The 1997 Grand Jury report found that the County was then losing as much as $100,000 per year in escaped assessments on the property tax associated with aircraft. Currently, DPW has no way to access locked hangars to be able to count the aircraft.

The Grand Jury questions whether taxes on aircraft housed at Gnoss are being lost. Using the figures we have cited, there are at least 213 rentals of spaces to house aircraft. Some hangars are large enough to house more than one plane. Given that only 158 aircraft were assessed and taxed, that leaves a minimum of 55 storage spaces that either had or did not have a taxable aircraft. The potential loss is, therefore, 55 times $3,200 or about $170,000. Some of these hangars may, indeed, be empty or have planes that for one reason or another are not taxable in Marin County. We simply do not know. The Grand Jury requested an explanation of the discrepancy but the Assessor’s Office has not adequately explained the difference.

The FAA heavily subsidizes the airport. This is typical for general aviation airports like Gnoss Field. The FAA underwrites most capital improvement projects at airports. Each year the FAA provides approximately $150,000 towards upkeep and operations at Gnoss. In addition the FAA will fund the largest share of capital improvements, including the proposed update of the AWOS system, repairs to the pumping station and, if approved, the extension to the runway. The FAA contributions are significant because without them

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13 Marin County Airport (Gnoss Field) Report, Marin County Civil Grand Jury, 1997, p.67.
Gnoss Field would likely operate at a deficit; and capital improvements, if undertaken, would be a drain on County general funds. The FAA grants come with strings attached. The federal government’s stake in providing the funding is, in part, to maintain a system of airports across the country that allow general aviation activities to continue. Marin County for its part has agreed to abide by a series of obligations, including maintaining the lands around the airport to allow safe operations and operating the airport in a safe manner. The obligations also require compliance with rules prohibiting exclusive rights to usage, civil rights laws and the like. The County is also obligated to keep the airport functioning, meaning that the airport cannot be closed without breaching those responsibilities. The current listing of the National Plan of Integrated Airport Systems includes Gnoss Field and shows anticipated development costs of almost $15 million between 2013 and 2017, which is approximately equal to the amount estimated for construction of an extension.

Leases

Gnoss Field has a bewildering array of leases. The majority of the leases are ground leases, meaning that users rent the ground and then build or bring in their own hangars. Most of these hangars are large enough for a typical single- or small two-engine airplane. Some larger hangars owned by the County are rented on a month-by-month basis. There are some larger County-owned hangars leased to corporate users, most of which house business jets. Each lessee is required to agree to conditions including approval of the design of the hangar (if applicable), provision of proof of insurance, and agreements regarding defaults. The ground leases were typically written with twenty-year terms. They allow for increases in rental amount every 5 years based on the Bay Area Consumer Price Index (CPI). There are provisions for sub-letting and assigning the leases to other users. The Grand Jury reviewed several leases that were handed down through several users over the course of their term. We understand that all of the land-leases are current; however, most are coming up for renegotiation in the next several years. The County is assuming that the rental amounts will be increased at that time (see Appendix C). In 2012, the projected increases were to be between 10 and 22 percent. It is not clear whether the County intends either to shorten the length of the lease agreements or to reduce the automatic rate increase intervals to less than 5 years. A review of the February 2014 lease report spreadsheet confirmed that rents have increased by an amount roughly equaling the 5-year CPI increases.

Security

In its first visit to Gnoss Field, the Grand Jury had concerns about security at the airport. Given the high level of security that any air traveler experiences at large airports, we wondered what the security requirements are for airports like Gnoss Field.

Following the attacks of September 11, 2001, in New York and Washington D.C., the federal government, through the FAA and the Transportation Safety Administration (TSA), issued advisories regarding security at general aviation airports across the United States. Through threat analysis, the TSA determined that the probability of a major incident beginning at a General Aviation airport was relatively low. After all, the size of planes that can land in the smaller airfields do not lend themselves to carrying large payloads of bombs nor of directly inflicting damage such as the airliners on 9/11. “To date, general aviation airports have not been subjected to direct federal regulation.”16 In 2004, the TSA issued a comprehensive set of recommendations to general aviation airports detailing actions that would help to prevent not only terrorist threats but other types of incursions as well.

When rated on the Airport Characteristic Measurement Tool from the 2004 recommendations, Gnoss Field does not reach the very highest level of need because large jets and turboprop aircraft do not use the field. However, the TSA as well as the FAA recommend actions that will insure a high level of security at general aviation airfields.

The Airport Cooperative Research Program (ACRP) offers a list of best practices to make an airport less vulnerable.17 We list the recommendations that would apply to Gnoss Field:

- Ensure home facility perimeter security with effective fencing, lighting, security patrols (as appropriate), gates, and limited access areas.
- Ensure street-side gates and doors are closed and locked at all times.
- Require positive access control for all external gates and doors.
- Close and lock hangar doors when that area is unattended.
- Post emergency numbers prominently around facility.
- Ensure easy access to phones or “panic buttons” in various facility locations (break room, hangar bay, etc.).
- Be aware of your surroundings and do not be complacent—challenge strangers.

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17 *ACRP Synthesis 3*, p. 17.
In 2003, the then chair of the Marin County Aviation Commission charged that “security is lax at the county airport at Gnoss Field” and suggested, among other things, that the County should provide “around the clock security guards.” 18 Despite some changes over the years, weak spots in security practices at Gnoss Field remain. One of the most successful changes has been the contracting with a private security firm, First Security and Patrol, Inc., in 2008 (Appendix A). With its ten-hour nightly patrol services, no incidents of theft or security breaches have occurred for the past six years.

The other 14 hours of the day are problematic. The airport manager is at the airport for eight hours a day each weekday. A weekend employee is also on duty eight hours a day. That means that there are six hours a day without any airport personnel on site to respond to problems. Moreover, even when managers are on site, they are so busy with other responsibilities that it is not reasonable to assume that they can also provide adequate security at all times. A staff person in the Marin County Sheriff’s department stated that there are no regular patrols by Sheriff’s deputies.

In addition to the daily lack of coverage, the County does not provide any daytime coverage for the eleven federal holidays per year. Of course, owners and employees of on-site businesses and aircraft owners at the airport may report possible security breaches. Indeed, that has happened on occasion in the past, but that is not something that the County can rely on for the security of Gnoss Field. One aircraft owner stated that he had personally witnessed five events and had been the caller to 911 to report several of them. Effectively, then, there is seldom more than one person to monitor the well being of the airport at any time. There is time every day when there might be no one to witness an incident or call for help. Incidentally, some airports— but not Gnoss Field— recognize the value of the awareness of pilots and airport tenants of suspicious activity and offer rewards for reporting such conduct to proper authorities.

The Grand Jury observed that the site is fenced only on the western side. The rest of the perimeter faces onto wetlands and levees. The fences are, at most, 6 feet and in some places 3 feet high. Fences have no barbed wire at the top. The current fencing shows signs of age. Although the Grand Jury members decided not to try to scale the fences ourselves, we believe that a person with reasonable agility and a desire to enter the airport could do so at virtually any spot along the periphery. In addition, several gates onto the property are open during the day and unlocked at night. A vehicle gate at Gnoss Field has a delayed closure of approximately 8 seconds, enough time for a second vehicle to access the field. A sign states that the gate is only for authorized users but there is no signage to remind vehicle operators to confirm gate closure.

We saw no signs warning people about dangers of entering the airport grounds other than one small sign stating that they would enter at their own risk. There are no signs prohibiting trespassing. The FAA through its Airport Cooperative Research Program (ACRP) as well as the TSA strongly encourages the use of signs to deter unauthorized persons from coming onto the airport property.19

Fortunately, neither DPW staff nor several of the airport users we spoke with were aware of any recent incursion or theft at the airport. One pilot said that he was “surprised that there hasn’t been any theft or vandalism.” Every person that we asked about security at the site admitted that entry onto the airport is easy. Several people expressed concern that there might eventually be some sort of break-in and agreed that increased security measures would be helpful.

TSA states that tenant lease agreements should allow airport management access to all hangars to inspect and guarantee that inappropriate activities are not occurring.20 Currently, the Gnoss Field manager does not have keys to the hangars. Some other general aviation airports require that users purchase locks from the airport for use on hangars to guarantee access when needed. From such an airport lease agreement: “The Airport and its designated agents may enter hangars at any time for inspection. Only locks provided by the Airport may be used on hangar doors.”21

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The Grand Jury was told by several sources that there is, practically speaking, no way to know whether planes have landed or taken off unless staff happens to be watching the runway. Because this is a general aviation airport without a tower, there is no requirement from the FAA or other agencies to monitor use of the runways for takeoffs, landings or “touch and goes” (where a pilot, usually a student, sets wheels on the ground only very briefly, powers up the engines and takes off again without coming to a stop). DPW staff freely admitted that they do not really know how many aircraft use the field.

The airport has eight video cameras. All but one of the cameras point toward the parking and hangar areas. That one camera shows only a few yards of runway between two hangars. There is no camera that covers either the runway or its taxiway. The video is viewable only in the airport manager’s office, and there is no way to view the video offsite. The County retains copies of the video for one year.

**Needed Repairs to Runways and Taxiways**

The Grand Jury heard from several airport users that there are several potentially dangerous problems with the surface of the runway and taxiways. Several members of the Grand Jury viewed the runway close up. To our admittedly untrained eyes, we could see no major cracks or breaks in the surface. We also noted numerous patches. In addition, as we carefully viewed photographs, we could see obvious buckling and an uneven surface. At a briefing session in January 2014, the County staff provided a spreadsheet to the Board of Supervisors, showing the plans to resurface the runway in 2018. Several sources stated that this would be done at the same time as the runway extension should the extension be approved. The Grand Jury believes that the runway paving work may need to be done prior to 2018.
Automated Weather Observing System

Gnoss Field has in place an Automated Weather Observing System (AWOS). An AWOS is an automated set of sensors designed to record current weather conditions and automatically broadcast these via a computer-generated radio message. The County installed the current system in 1999. The Grand Jury heard from several sources that the system has problems and is able to operate only with ongoing repairs. During the preparation of this report, DPW made a grant request to the FAA to install a new AWOS system. This is reflected in a financial planning document prepared for the Board of Supervisors (see Appendix C), which shows that the new system will be installed in 2014. There is a total cost estimate of $90,000 with a County share of $4,500 (5 percent).

Safety

A general aviation airport has inherent risks. Planes can crash on or near the airport, and Gnoss has had crashes in the past. Lately, at least one significant incident has occurred approximately every year. In 2006, two people were killed in a plane crash near the airport.22 The airport has no on-site firefighting or other safety equipment beyond fire extinguishers. Several users told the Grand Jury that they had been on the site when there were incidents or crashes. One discussed helping to right a small plane in order to extricate the pilot. Especially because of the crosswinds, planes occasionally leave the runway.

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Wildlife strikes are a significant threat to aircraft, usually a plane striking a bird during takeoff or landing. The airport has signage in place to show pilots where to report incidents involving wildlife strikes. In addition, the airport website has clear instructions detailing how to report such instances. DPW staff told the Grand Jury that no bird strike incidents have occurred, at least in the past several years.

There are other risks at the airport including those associated with fueling operations and, perhaps most importantly, the possibility of vehicular accidents near the hangars and taxiways. The Grand Jury members on a tour of the facility observed one user riding near the hangars with a very young child sitting on the fuel tank of a four-wheeled all-terrain vehicle.

Although it is speculative, it occurred to us that pilots of small aircraft are not as likely to be as risk-adverse as the population in general, including many members of this Grand Jury. Most staff and users seemed to feel that the relatively low level of safety preparations was not a problem. There were exceptions. One person, a pilot, pointed out that there was no way to call for help other than on cell phones, which had variable coverage. He suggested that an emergency call system, such as he had seen at other general aviation airports, would be helpful. The ACRP recommendations for airport safety also recommend considering such a system. The Grand Jury requested copies of all instructions regarding on-airport emergencies. What we received was a single page (shown as Appendix B), which gives phone numbers to call, rudimentary instructions regarding whom to call, and some general instructions regarding what to do. There is neither manual nor specific instructions regarding how to handle fires or the location of fire extinguishers or first aid kits.

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24 ACRP Synthesis 3
In our visits to the airport, we saw no fire extinguishers available around the airport. The manager has several in his pickup truck. The one automated external defibrillator (AED) and first aid kits kept in the administration building are available 24 hours per day. There is no sign in the hangar area pointing out where these are located.

The designated first responding agency to the airport is the Novato Fire Department. An interview with staff of Novato Fire disclosed that they were well aware of their responsibilities regarding the airport. The Fire Department has radio codes to open the gates quickly, and they have a staff review of the airport at least once each year. They do not conduct either tabletop or actual drills at the airport. Staff said, “It’s not really different than the roadways. A crash is like a car crash.”

Gnoss could have a written emergency plan that is readily accessible to users. Several templates provide a “fill in the blanks” format that allows preparation of such a plan with relative ease. The plan provided by the University of Minnesota AirTAP program provides a brief and simple outline, which allows general aviation facilities to establish a plan capable of sharing with other entities.  

**Gnoss Field as Part of Disaster Preparedness in Marin**

The Grand Jury asked many of the interviewees whether Gnoss Field is designated to play a part in a major emergency in Marin. They all stated that, in the event of a disaster, the airport would prove useful. In fact, however, there appears to be no written plan that incorporates Gnoss Field. There are no written instructions at the airport regarding how to respond to a large-scale emergency. The current Draft Marin Emergency Operations Plan does not contain any instructions regarding use of the airport.  

The location of the airport puts it well north of the County’s geographic and demographic center. The single access road runs through former wetlands and is vulnerable to earth settling and flooding. Several people speculated that the airport could provide emergency evacuation in case roads were unusable. There are, however, no plans to provide emergency transportation for anyone, and it seems doubtful that the airport could handle any large-scale evacuation. At a public meeting, one member of the Board of Supervisors joked that the airport could provide emergency transport for the Supervisors should their constituents become threatening.

In the event of some types of events, especially a major earthquake, the airport itself would be at high risk for suffering significant damage. Gnoss sits on bay wetlands and has had problems in the past with earth settlement. The EIR for the proposed runway extension states that, in an earthquake, “if left unmitigated at the site, the existing soils will be subject to differential settlement due to the previously discussed ground effects during a seismic event…. The effects of the seismically induced differential settlement will be comparable to those incurred from settlement of compressible soils (i.e.,

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26 Draft Emergency Operations Plan, Marin County Sheriff’s Office of Emergency Services, December 2013
pavement distress, cracking, subsurface utility damage). However, the effects are likely
to be immediate and of considerably greater magnitude, potentially posing a threat to air
traffic utilizing the runway.” 27 A study of effects of a major earthquake on the Rodgers
Fault (approximately 10 kilometers from the airport) is even starker. 28 When referring to
the use of helicopters the report stated, “None of the county, secondary and small
commercial airports in Marin, Napa and Sonoma counties with the exception [emphasis
added] of Marin County Airport [Gnoss Field], will have local access problems.” Further,
the report added that the airport would be “Closed…High liquefaction potential. Access
road and runway will be damaged by soil liquefaction between Highway 101 and the
Petaluma River.”

The Grand Jury asked several staff members whether the airport was capable of
providing landing or takeoff for air tankers in the event of a major fire in the County.
They all told us that this would not be possible. The airport does support the Civil Air
Patrol, which maintains a small airplane that is capable of providing reconnaissance
flights in the event of fires or other emergencies. There is also a small Sheriff’s aircraft
housed at Gnoss Field.

The FAA through its Airport Cooperative Research Program has recently issued a
guidebook to integrating community emergency response with local airports. The guide
targets larger airports; however, the guide encourages coordination of services. The
approach is to use various agencies but, most importantly, the already existing
Community Emergency Response Team volunteers, to provide assistance to keep the
airport in operation, as well as to provide services back to the surrounding populace. 29

Airport Extension

As mentioned earlier, at 3300 feet, the current runway is short for a general aviation
airport such as Gnoss Field. As a result, a proposal is being pursued to extend the runway
to 4,400 feet. As the Grand Jury was preparing this report, the Marin County Board of
Supervisors approved an environmental impact report (EIR). 30 We learned that the
current airport does not support larger aircraft and especially larger corporate type jets.
Especially in warm weather, larger planes need to take off with partial fuel loads in order
to save weight. These aircraft then need to fly to another airport such as Santa Rosa or
Napa in order to leave the area with full fuel tanks. The Grand Jury is not taking a
position on the proposal but does note that the County has represented in its informational
releases on the runway extension that “it would not enable the Airport to change its
classification or to serve private aircraft that are larger than those now accommodated.”
Further, the proposal states that the extension “is not part of a planned step forward

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28 Toppozada, Tousson R., et al., Planning scenario for a major earthquake on the Rodgers Creek Fault in the
Northern San Francisco Bay Area, California Department of Conservation, Division of Mines and Geology, July 1994,
https://archive.org/details/planningscenario112topp
29 IEM et al., ACRP Report 95, Integrating Community Emergency Response Teams (A-CERTS) at Airports, 2013,
transferring Gnoss Field into a full service, commercial airport with scheduled service to other cities.” DPW staff has told us that the extension is likely to cost approximately 15 million dollars, which is roughly, what the FAA has shown as budgeted for Gnoss. The Marin County share will be about one tenth of that amount or about 1.5 million dollars.

The Grand Jury notes that in the Airport Financial Forecast produced for the Board of Supervisors on February 11, 2014 (Appendix C), the airport reserve balance for 2018 is projected to be $1,185,734, which would not be sufficient to cover the 1.5 million dollar County match for the extension. The Grand Jury understands that all County expenditures relating to the airport are to be paid from the Enterprise Fund.

**Noise**

Some neighbors of the airport, especially in neighborhoods to the south (Bahia and Rush Creek), have expressed concern about noise created as planes take off and land. Newspaper accounts reveal that 90 people have signed a petition asking for a review of this problem as part of the recently completed EIR. The Grand Jury reviewed procedures at the airport regarding noise abatement. The airport website shows altered landing and takeoff patterns to minimize over flights of the neighborhoods. The AWOS system that provides weather information to pilots via radio includes instructions to pilots to avoid flying over homes, if possible. Several interviewees told the Grand Jury that the current airport manager speaks to each pilot reported to have flown over homes and provides directions to avoid doing so. A review of the complaint log kept at the airport office showed that there were approximately two complaints per month recorded. The Grand Jury notes that, ultimately, the pilot in command of an aircraft is authorized to use whatever flight path she or he deems to be safe, and local government cannot place restrictions that limit that ability.  

**FINDINGS**

The Grand Jury finds:

F1. Overall, Gnoss Field is well managed.
F2. Gnoss Field does not currently impose a significant financial burden on the County.
F3. The County’s accounting for the airport is not easy to access.
F4. The coming expiration of the long-term leases will provide an opportunity to renegotiate terms and rates at a more favorable level and to shorten the lease periods.
F5. Gnoss Field does not have adequate fencing and signage to discourage incursions onto the hangar area or runway/taxiways.

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F6. Gnoss Field safety is not up to best practices. There are inadequate written procedures, lack of safety equipment throughout the facility, and lack of appropriate signage.

F7. Planning documents indicate that the runway is not to be resurfaced until construction of the proposed extension in 2018, potentially allowing current conditions to deteriorate further.

F8. Gnoss Field is not integrated into the Marin County Emergency Plan.

F9. Pilots landing at Gnoss Field occasionally fly over homes and cause noise disturbances. There is no clear remediation available.

F10. Staff of DPW or the Assessor’s office has been unable to determine whether lessees are using the hangars for non-aviation related uses or whether all aircraft are being properly assessed for property tax purposes.

F11. The Gnoss Field Master Plan is out of date and incorporates faulty growth projections for general aviation in Marin.

**RECOMMENDATIONS**

The Grand Jury recommends:

R1. No recommendations are associated with Finding #1 and Finding #2.

R2. Marin County improve its accounting of its enterprise fund, in order to clearly delineate that Gnoss Field revenues and expenses are reported within the enterprise fund and not the General Fund. The enterprise fund report be available to the public.

R3. DPW staff survey fees at neighboring airports in order to establish comparable rental rates on the hangars and business sites and implement those rates for new leases at Gnoss Field.

R4. Gnoss Field increase security patrols so that there is at least one staff or security person on the airport site 24 hours per day.

R5. The County provide higher fences, locked gates and improved signage discouraging unauthorized entry onto the taxiways and runway at Gnoss Field.

R6. The County inspect the Gnoss Field runway and make needed changes including resurfacing as necessary, even if that work precedes completion of a runway extension.

R7. The County update the video surveillance system at Gnoss Field by adding cameras to allow viewing of the runway. Additionally, the County adopt a system that will allow off-site visual assessments by the Sheriff’s department and fire department.

R8. County staff prepare an emergency manual and provide it to staff, renters and others who may need to respond to emergencies on the site.

R9. DPW staff complete an emergency response plan using the template provided by the Department of Homeland Security.
R10. The County Department of Emergency Services, in consultation with DPW staff, consider incorporating the airport into disaster planning as appropriate, noting that the airport might not be usable in certain types of disasters such as earthquakes.

R11. The County communicate on a regular basis with residents of Rush Creek and Bahia neighborhoods to address noise complaints and efforts undertaken by the County to reduce incidents.

R12. The County install a call box or direct line to notify first responders in case of emergencies at the airport.

R13. All new leases require that lessees provide keys or there be other means to allow airport personnel and/or the Assessor to inspect hangars and aircraft housed at Gnoss Field.

R14. The County update the Master Plan to reflect current utilization and needs at Gnoss Field.

REQUEST FOR RESPONSES

Pursuant to Penal code section 933.05, the grand jury requests responses as follows:

From the following governing body:

- Marin County Board of Supervisors **Findings 3-11 and Recommendations 2-14**

The governing body indicated above should be aware that the comment or response of the governing body must be conducted in accordance with Penal Code section 933 (c) and subject to the notice, agenda and open meeting requirements of the Brown Act.

The Grand Jury invites responses from the following:

- Director, Department of Public Works, Marin County
- County Administrator, Marin County
- Chairperson, Aviation Commission, Marin County
- Chairperson, Marin County Airport Land Use Commission

BIBLIOGRAPHY

- Marin County Airport (Gnoss Field) Report, Marin County Civil Grand Jury, 1997
- Draft, Emergency Operations Plan, Marin County Sheriff’s Office of Emergency Services, December 2013
- Cortright and Seibold, Airport Master Plan 1989 (updated 1997), Marin County Airport (Gnoss Field),


- IEM et al., *ACRP Report 95, Integrating Community Emergency Response Teams (A-CERTS) at Airports*, 2013, Transportation Research Board, 

- Muia, Maria J., Consultant, *ACRP Synthesis 4, Counting Aircraft Operations at Non-Towered Airports*, 2007, Transportation Research Board, 


- Staats, Jim, “Pilot, passenger not hurt after crash at Gnoss Field in Novato,” *Marin Independent Journal*, July 6, 2006, 

- Toppozada, Tousson R., et al., *Planning scenario for a major earthquake on the Rodgers Creek Fault in the Northern San Francisco Bay Area*, California Department of Conservation, Division of Mines and Geology, July 1994, 
  https://archive.org/details/planningscenario112topp

  http://onlinepubs.trb.org/onlinepubs/acrp/acrp_syn_003.pdf

  http://www.marinij.com/ci_4254494


- Code of Federal Regulations, Title 14, Part 91, § 91.3, 
  http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgFAR.nsf/0/e63bbedc3044a110852566cf00612076!OpenDocument#_Section1


- Airport Compliance Manual, Federal Aviation Administration, 


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**Please Note:** Some of the links listed in the footnotes and bibliography may not be active and might require copying the information into a search engine. At the time this report was prepared, the information was available at the sites listed.

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Reports issued by the Civil Grand Jury do not identify individuals interviewed. Penal Code Section 929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Civil Grand Jury. The California State Legislature has stated that it intends the provisions of Penal Code Section 929 prohibiting disclosure of witness identities to encourage full candor in testimony in Grand Jury investigations by protecting the privacy and confidentiality of those who participate in any Civil Grand Jury investigation.
APPENDIX A– SECURITY CONTRACT

DEPARTMENT CONTRACT APPROVAL FORM (DCAF)
STANDARD SHORT FORM CONTRACT
Risk Management (RM)

Contractor Name: First Alarm Security & Patrol, Inc.
Company Name: Security Patrol Services at Gnoss Field, Marin County Airport
Contract Title:  
Maximum Cost to County $81,099.00 Grant $  Revenue to County $ 

Routing:
PO# ______ Contracts $25,000 and under require Risk Management approval.
Req# 10014525 Contracts over $25,000 require Risk Management approval of insurance
and thereafter BOS approval.

Contract Start Date 03/01/2012 Contract End Date 02/28/2013

- County policy prohibits commencement of work prior to final contract approval by Risk Management or BOS.
- No changes to contract content by any party shall be made without signed approval by County Counsel (signature section, page 4) prior to contractor’s signature.

Department Submitting Contract: Department of Public Works
Contract Contact Person Dan Jensen/Connie Lazzaretto Ext 415-897-1754

Contract Submission Checklist:
☑ Are all exhibits completed and attached
  Exhibit A – Scope of Services
  Exhibit B – Fees and Payment
  Exhibit C – Insurance Waiver (if needed)
☑ Has Contractor Initialed Section 21 - Exhibits
  and signed page 4 on all copies (1 original + at least 1 copy)
☑ Has Contractor provided current certificates (proof of insurance pursuant to Section 6
  (or a waiver. Exhibit C. In lieu of coverage or to request reduced limits, has been completed)
  6.1 General Liability
  6.2 Auto
  6.3 Workers’ Compensation
  6.4 Professional Liability

Contract Manager [Person authorized to commit County funds, direct grant money or otherwise enter into this agreement]
Name: Dan Jensen
Signature ___________________________ Date 2.22.2012

RISK MANAGEMENT USE ONLY
Contract Tracking #
Risk Manager Approval _______ Contract Review _______ Date 2.24.12
☐ PO Released Date 2.24.12
☐ Contract held/notice provided to

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Marin County Civil Grand Jury
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Appendix A (Cont.)

EXHIBIT "A"
SCOPE OF SERVICES (required)

Contractor shall provide the following services:

- Security guard personnel, 10 hours nightly, seven days a week, with hours of coverage as determined by County Airport Manager.
- Prepare a nightly report for airport management.
- Report unlawful activities and emergency service needs to appropriate emergency response agencies and County Airport Manager.
- Airport facility to be patrolled throughout each shift.

Additional Contract Requirements:

- Provide an all-weather patrol vehicle/cart with adequate lighting capability to view building corridors and grounds at night.
- Provide an electronic patrol verification system capable of providing a printed chronological record of patrol activities (i.e. touch-probe type system).
- Security guard shall be uniformed.
- Contractor shall provide communication/dispatch capability adequate to provide on-demand contact with standing guard by county staff/law enforcement. This may be accomplished by means of 24 hour staffed dispatch with radio communications, dedicated cellular telephone or other means acceptable to the County of Marin.
- Contractor shall possess State and Local and professional licenses as required.
APPENDIX B

Gnoss Field Emergency Response Guide

Order of contacts;
1. Com Center for EMS/Fire/Sheriff # 415-472-0911
   Non-Emergency # 415-473-7243
2. FAA Notam Line for runway closure # (877) 487-6867
3. Airport Manager # 415-819-5285  (Dan Jensen)
   Weekend Manager # 415-488-7194  (Tom Phillips)
4. DPW Director (Bob Beaumont) if Airport Manager unavailable
5. FAA # (510) 748-0122 OAK # (310) 725-3300

Airport Staff Actions;
1. Activate appropriate emergency response
2. Administer emergency first aid as appropriate/able
3. Open and secure main gate to expedite EMS/Fire response
   North gate bulletin board-Turn off breakers to open gate
4. Deploy spill control as needed for situation
   Spill kit supplies: ARGO Shed (near wash rack)
   Combination Code # 4812
5. Secure crash site, assist Sheriff Officer with crowd control/
   security needs
6. Place runway closure markings (extended period closure)
7. Photograph the aircraft, scene and area
8. Contact FAA for authorization to move the aircraft, assist pilot
   with reporting if he/she is able.
9. Maintain scene safety at all times
10. Refer press to Fire information officer or DPW for comment

DPW Administration

Notify: Bob Beaumont # 415-473-6540
       Saaid Fakharzadeh # 415-473-6521
# APPENDIX C

## GN OSS FIELD REVENUE AND EXPENSE PROJECTIONS

### Airport Financial Forecast 2014-2024

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* 3% CPI increase on all revenues & expenses

** 28 hangars will have new leases (market rate) with county starting in 2015 to 2019

Fuel Farm lease expires February/2018 (Gallons sold x $.50)

### Corporate Hangar lease rate increases

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| County Share of Total Expenditures | 8,000 | 12,600 | 11,250 | 147,000 | 4,896 | 38,769 |

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